

Search Report

EIC 1700

STIC Database Tracking Number: 237504

To: RIP LEE
Location: REM-10A21
Art Unit: 1713
Wednesday, September 26, 2007

Case Serial Number: 10/518935

From: KATHLEEN FULLER
Location: EIC1700
REM-4B28 / REM-4B19
Phone: (571)272-2505

kathleen.fuller@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

SCIENTIFIC REFERENCE BR
Sci & Tech Inf - Cntr
SEP 17 RELJ

Access DB# 237604

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: LEE, R. A. Examiner #: 73680 Date: Sept 13, 2007
Art Unit: 1713 Phone Number: 1104 Serial Number: 10/518,935
Mail Box and Bldg/Room Location: DEM 10A21 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: CATALYST

Inventors (please provide full names): SCHOTTENBERGER, H

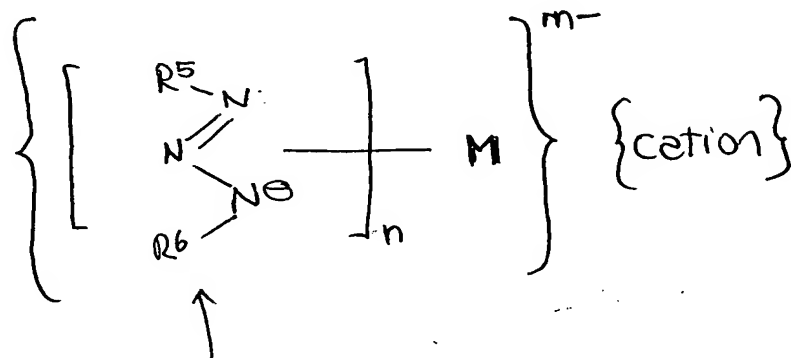
ISPEIJ, E

(see bibliography, attached)

Earliest Priority Filing Date: OCT-22-2002

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for following class of compounds (see claim 16, 17)



triazeno ligand
triazene
triazenyl

$n=1-6$
 $R^5, R^6 = \text{any group}$

M is any metal
fragment containing M
must be anionic

STAFF USE ONLY

Searcher: K. Fuller
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: 9/25/07
Date Completed: 9/26/07
Searcher Prep & Review Time: 40
Clerical Prep Time: _____
Online Time: 30

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) 1
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN L
Dialog _____
Questel/Orbit _____
Dr. Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

=> FILE REG

FILE 'REGISTRY' ENTERED AT 09:30:17 ON 26 SEP 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 25 SEP 2007 HIGHEST RN 948051-90-9

DICTIONARY FILE UPDATES: 25 SEP 2007 HIGHEST RN 948051-90-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> FILE HCAPL

FILE 'HCAPLUS' ENTERED AT 09:30:25 ON 26 SEP 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 26 Sep 2007 VOL 147 ISS 14

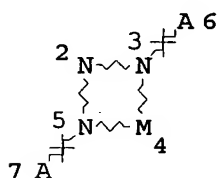
FILE LAST UPDATED: 25 Sep 2007 (20070925/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE L13

L3 STR



763 structures from
this query

NODE ATTRIBUTES:

NSPEC IS RC AT 6
 NSPEC IS RC AT 7
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L5 763 SEA FILE=REGISTRY SSS FUL L3
 L7 91 SEA FILE=REGISTRY ABB=ON L5 AND 2/NC
 L11 42 SEA FILE=HCAPLUS ABB=ON L7
 L13 35 SEA FILE=HCAPLUS ABB=ON L11 AND (1840-2002)/PRY,AY,PY

*91 structures with
 2 components
 (anion + cation)*

=> D L13 BIB ABS HITIND HITSTR 1-35

*35 CA references with
 a priority of 2002 or earlier*

L13 ANSWER 1 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 2004:20721 HCAPLUS
 DN 140:94464
 TI Non- or weakly coordinating anion as catalyst activator for olefin
 polymerization
 IN Friederichs, Nicolaas Hendrika; Ijpeij, Edwin Gerard; Mueller, Adrian
 Gallus; Schottenberger, Herwig; Wang, Bing; Wurst, Klaus
 PA DSM Ip Assets B. V., Neth.; Sabic Polypropylenes B. V.; Sabic
 Polyethylenes B. V.
 SO PCT Int. Appl., 30 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

applicant

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004003030	A1	20040108	WO 2003-NL472	20030626 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003251229	A1	20040119	AU 2003-251229	20030626 <--
EP 1517927	A1	20050330	EP 2003-761867	20030626 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005531666	T	20051020	JP 2004-517400	20030626 <--
US 2006014633	A1	20060119	US 2005-518935	20050831 <--
PRAI EP 2002-77590	A	20020628	<--	
US 2002-419966P	P	20021022	<--	
WO 2003-NL472	W	20030626		

OS MARPAT 140:94464

AB A catalyst composition comprises a salt of a non- or weakly coordinating anion [LnM(R1qA1-X-A2R2r)m]w-, which contains at least one metal or metalloid ion M with valency v+ (v = 1-5), and at least one bidentate ligand

coordinating to this metal or metalloid ion, where X = a bridging moiety; A1 and A2 = group containing N, O, P, S or C; R1 and R2 = group comprising an optionally substituted linear or branched (hetero)alkyl, an optionally substituted (hetero)aryl, and a Si containing group; L = a ligand to M or a bridging moiety between two M atoms; n = 0-5, m = 1-6, (n + m) > 6, (n + m) ≤ 6, w = 1-3. Metallocene catalysts can be activated by this non- or weakly coordinating anion, and be used as catalysts for olefin polymerization

IC ICM C08F010-00

ICS C08F004-64; B01J031-12; B01J031-18

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 29

IT 642097-25-4P 642097-29-8P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(catalyst activator; non- or weakly coordinating anion as catalyst activator for olefin polymerization)

IT 642097-27-6P 642482-93-7P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(x-ray crystal structure; non- or weakly coordinating anion as catalyst activator for olefin polymerization)

IT 642097-25-4P 642097-29-8P

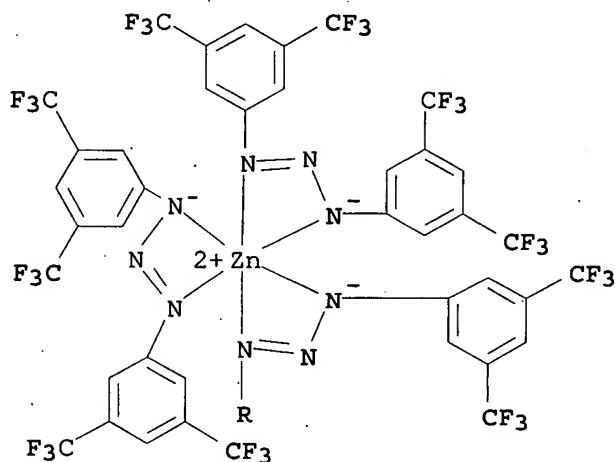
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(catalyst activator; non- or weakly coordinating anion as catalyst activator for olefin polymerization)

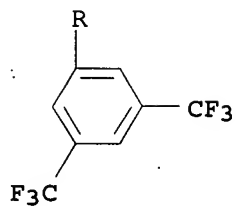
RN 642097-25-4 HCAPLUS

CN Zincate(1-), tris[1,3-bis(3,5-bis(trifluoromethyl)phenyl)-1-triazenato-κN1,κN3]-, potassium, (OC-6-11)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

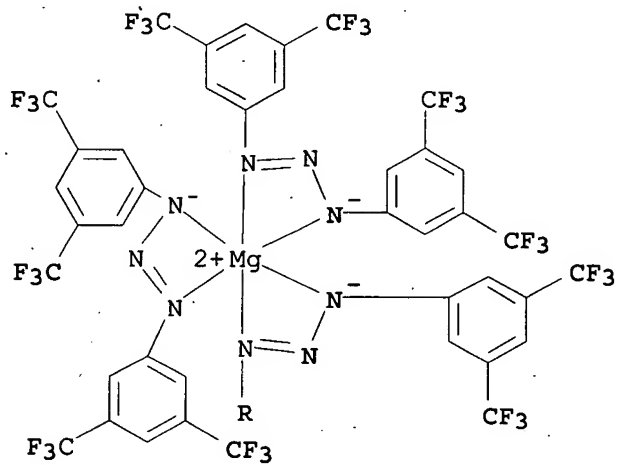


RN 642097-29-8 HCAPLUS
 CN Methylium, triphenyl-, (OC-6-11)-tris[1,3-bis[3,5-bis(trifluoromethyl)phenyl]-1-triazenato-κN1,κN3]magnesate (1-)
 (9CI) (CA INDEX NAME)

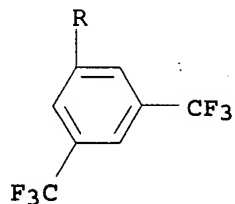
CM 1

CRN 642097-28-7
 CMF C48 H18 F36 Mg N9
 CCI CCS

PAGE 1-A



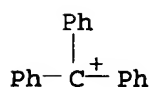
PAGE 2-A



CM 2

CRN 13948-08-8

CMF C19 H15



IT 642097-27-6P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);

USES (Uses)

(x-ray crystal structure; non- or weakly coordinating anion as catalyst activator for olefin polymerization)

RN 642097-27-6 HCAPLUS

CN Methylium, triphenyl-, (OC-6-11)-tris[1,3-bis[3,5-bis(trifluoromethyl)phenyl]-1-triazenato-κN1,κN3]zincate(1-)
(9CI) (CA INDEX NAME)

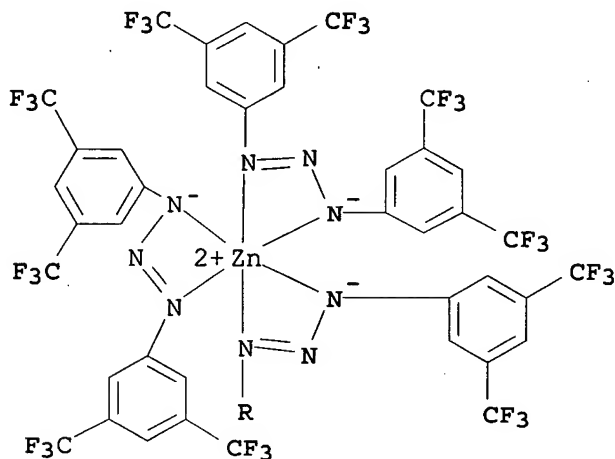
CM 1

CRN 642097-26-5

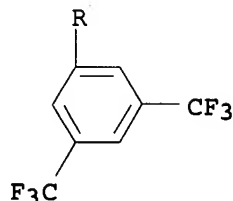
CMF C48 H18 F36 N9 Zn

CCI CCS

PAGE 1-A



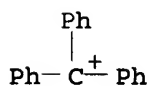
PAGE 2-A



CM 2

CRN 13948-08-8

CMF C19 H15



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:689250 HCAPLUS

DN 136:69934

TI Synthesis and characterization of chelate and bridging triazenide complexes of palladium and platinum. Stereoselective oxidative addition of chlorine or iodine to [NBu₄][Pt(C₆F₅)₂(η²-PhNNNPh)].

AU Ruiz, Jose; Lopez, J. F. Javier; Rodriguez, Venancio; Perez, Jose; Ramirez de Arellano, M. Carmen; Lopez, Gregorio

CS Departamento de Quimica Inorganica, Universidad de Murcia, Murcia, 30071, Spain

SO Journal of the Chemical Society, Dalton Transactions (2001), (18), 2683-2689

CODEN: JCSDAA; ISSN: 1472-7773

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 136:69934

AB The triazenide complexes cis-[M(C₆F₅)₂(η²-ArNNNAr)] - (M = Pd, Pt; Ar = C₆H₅, C₆H₄Me-p), anti-[[Pd(C₆F₅)(L)(μ-PhNNNPh)]₂] [L = PPh₃, t-BuNC, PhCN, tht (tht = SC₄H₈, tetrahydrothiophene)] and anti-[[Pd(C₆F₅)(Br)(μ-PhNNNPh)]₂]- have been prepared by treatment of the corresponding precursors [[M(C₆F₅)₂(μ-OH)]₂]- (M = Pd, Pt), [[Pd(C₆F₅)(L)(μ-X)]₂] (X = OH or Cl) and [[Pd(C₆F₅)(Br)(μ-Br)]₂]- with either ArN:NNHAr or ArNNNAr-. The stereoselective oxidation of cis-[Pt(C₆F₅)₂(PhNNNPh)]- with PhICl₂ or I₂ leads to the synthesis of the corresponding mononuclear platinum(IV) complex cis,trans-[Pt(C₆F₅)₂(PhNNNPh)(X)₂]- (X = Cl or I). The crystal structures of cis-[Pd(C₆F₅)₂(η²-PhNNNPh)]-, anti-[[Pd(C₆F₅)(t-BuNC)(μ-PhNNNPh)]₂] and cis,trans-[Pt(C₆F₅)₂(η²-PhNNNPh)(Cl)₂]- have been established by x-ray diffraction. The Pd...Pd distance bridged by the rigid triazenido

KATHLEEN FULLER EIC1700 571/272-2505

ligands in anti- $\{[Pd(C_6F_5)(t-BuNC)(\mu-PhNNNPh)]_2\}$ is 2.9907(8) Å where a boat conformation of the central 'Pd₂N₆' eight-membered ring is observed. The $[Pt(C_6F_5)_2(\eta^2-PhNNNPh)(Cl)_2]^-$ anion shows an octahedral arrangement around the platinum atom, involving two trans-chloro ligands, two cis-C₆F₅ groups and a chelating triazenide.

CC 29-13 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 75

IT 383198-38-7P 383198-46-7P 383198-52-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

IT 383198-42-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and stereoselective oxidative halogenation of)

IT 383198-40-1P 383198-44-5P 383198-45-6P 383198-47-8P

383198-48-9P 383198-50-3P 383198-54-7P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

IT 383198-38-7P 383198-52-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

RN 383198-38-7 HCAPLUS

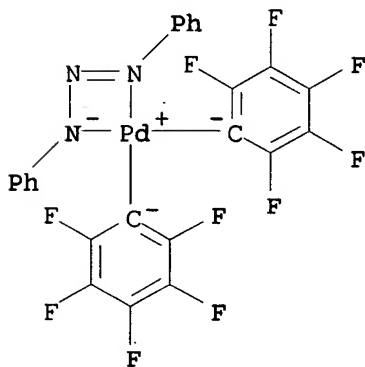
CN 1-Butanaminium, N,N,N-tributyl-, (SP-4-2)-(1,3-diphenyl-1-triazenato- $\kappa N1, \kappa N3$)bis(pentafluorophenyl)palladate(2-) (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 383198-37-6

CMF C24 H10 F10 N3 Pd

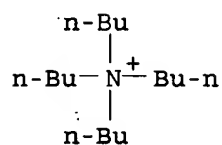
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RN 383198-52-5 HCAPLUS

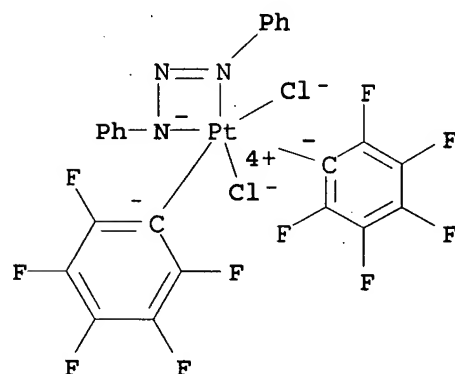
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-13)-dichloro(1,3-diphenyl-1-triazenato- κ N1, κ N3)bis(pentafluorophenyl)platinate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 383198-51-4

CMF C24 H10 Cl2 F10 N3 Pt

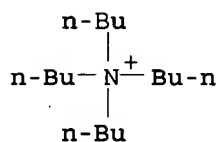
CCI CCS



CM 2

CRN 10549-76-5

CMF Cl6 H36 N



IT 383198-42-3P

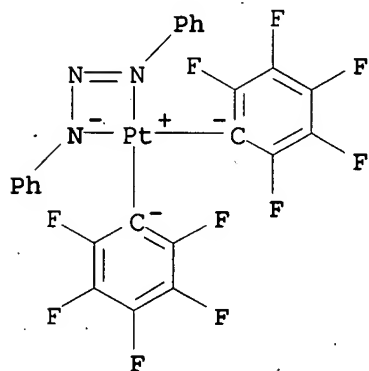
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and stereoselective oxidative halogenation of)

RN 383198-42-3 HCAPLUS

CN 1-Butanaminium, N,N,N-tributyl-, (SP-4-2)-(1,3-diphenyl-1-triazenato- κ N1, κ N3)bis(pentafluorophenyl)platinate(2-) (2:1) (9CI) (CA INDEX NAME)

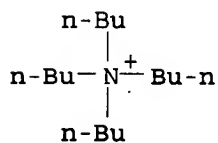
CM 1

CRN 383198-41-2
CMF C24 H10 F10 N3 Pt
CCI CCS



CM 2

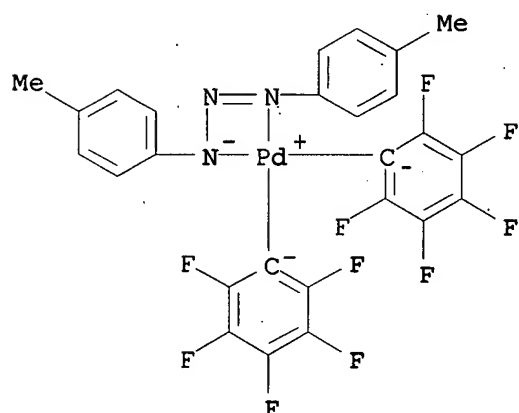
CRN 10549-76-5
CMF C16 H36 N



IT 383198-40-1P 383198-44-5P 383198-54-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 383198-40-1 HCAPLUS
CN 1-Butanaminium, N,N,N-tributyl-, (SP-4-2)-[1,3-bis(4-methylphenyl)-1-triazenato-κN1,κN3]bis(pentafluorophenyl)palladate(2-) (2:1)
(9CI) (CA INDEX NAME)

CM 1

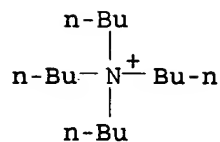
CRN 383198-39-8
CMF C26 H14 F10 N3 Pd
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RN 383198-44-5 HCAPLUS

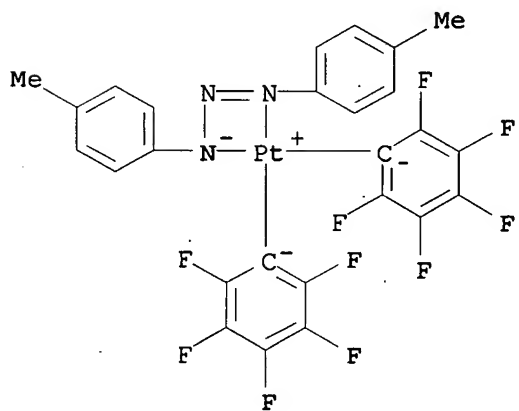
CN 1-Butanaminium, N,N,N-tributyl-, (SP-4-2)-[1,3-bis(4-methylphenyl)-1-triazenato-κN1,κN3]bis(pentafluorophenyl)platinate(2-) (2:1)
(9CI) (CA INDEX NAME)

CM 1

CRN 383198-43-4

CMF C26 H14 F10 N3 Pt

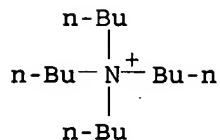
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RN 383198-54-7 'HCAPLUS

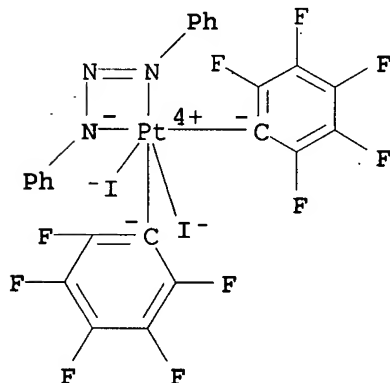
CN 1-Butanaminium, N,N,N-tributyl-, (OC-6-13)-(1,3-diphenyl-1-triazenato-
κN1,κN3)diiodobis(pentafluorophenyl)platinate(1-) (9CI) (CA
INDEX NAME)

CM 1

CRN 383198-53-6

CMF C24 H10 F10 I2 N3 Pt

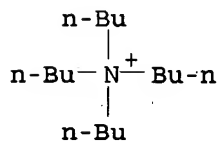
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N

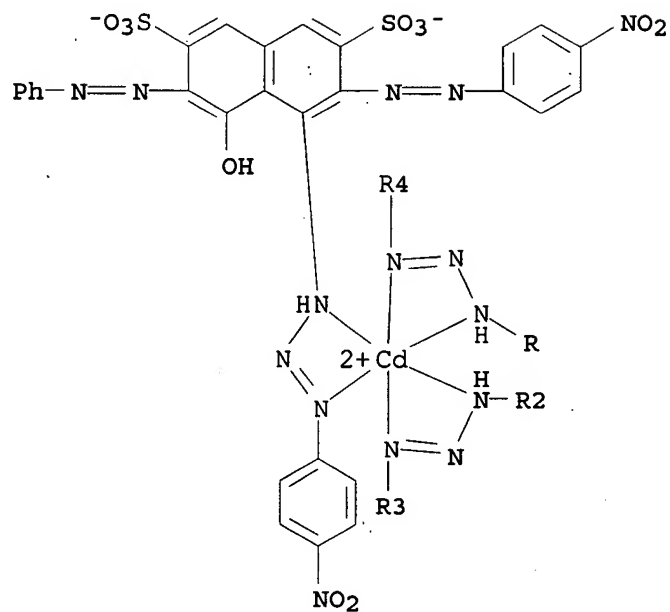


RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

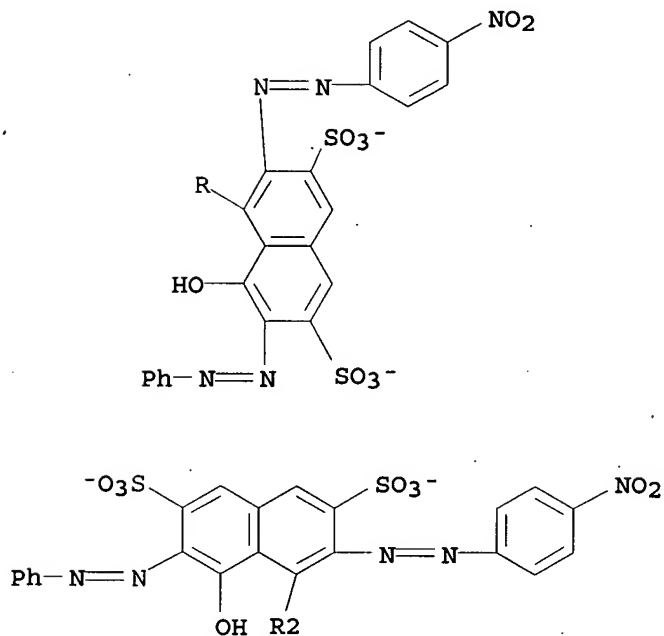
KATHLEEN FULLER EIC1700 571/272-2505

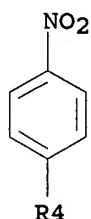
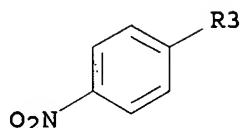
L13 ANSWER 3 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1999:290195 HCAPLUS
 DN 131:13041
 TI Synthesis of p-nitrobenzenediazoamido black 10B and its application to spectrophotometric determination of micro amounts of cadmium
 AU Zhang, Peng-Fei; Gao, Hong-Wen
 CS Department of Chemistry, Huaibei Coal Teachers College, Anhui, 235 000, Peop. Rep. China
 SO Asian Journal of Chemistry (1999), 11(2), 484-489
 CODEN: AJCHEW; ISSN: 0970-7077
 PB Asian Journal of Chemistry
 DT Journal
 LA English
 AB A new azoamino reagent p-nitrobenzenediazoamido black 10B (p-NDABB) was synthesized, and is a good chromogenic reagent for cadmium. In pH 9.8 Na2B4O7-NaOH buffer solution cadmium reacts with p-NDABB to form green chelate (1:3), exhibiting an absorptivity $1.81 \times 10^5 \text{ L mol}^{-1} \text{ cm}^{-1}$. Beer's law is obeyed in the range 0-9 $\mu\text{g}/25 \text{ mL Cd(II)}$. The method is simple and rapid, with high sensitivity and good selectivity and it is applied to the determination of trace amts. of cadmium in waste water and industrial materials with satisfactory results.
 CC 79-6 (Inorganic Analytical Chemistry)
 Section cross-reference(s): 56, 60, 61
 IT 225385-56-8
 RL: ANT (Analyte); FMU (Formation, unclassified); PRP (Properties); ANST (Analytical study); FORM (Formation, nonpreparative)
 (Hydrogen bonded complex with Triton X100; cadmium determination in wastewater
 and industrial samples by spectrophotometry using p-nitrobenzenediazoamido black 10B)
 IT 225385-56-8
 RL: ANT (Analyte); FMU (Formation, unclassified); PRP (Properties); ANST (Analytical study); FORM (Formation, nonpreparative)
 (Hydrogen bonded complex with Triton X100; cadmium determination in wastewater
 and industrial samples by spectrophotometry using p-nitrobenzenediazoamido black 10B)
 RN 225385-56-8 HCAPLUS
 CN Cadmate(4-), tris[4-hydroxy-3,6-bis[(4-nitrophenyl)azo]-5-[3-(4-nitrophenyl)-2-triazenyl- $\kappa\text{N1}, \kappa\text{N3}$]-2,7-naphthalenedisulfonato(2-)]-, hexahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A





● 6 H⁺

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:26086 HCAPLUS
DN 128:102212
TI Organonickel(II) complexes with anionic N-donor ligands. Hydration of coordinated nitriles at a nickel(II) site
AU Sanchez, Gregorio; Ruiz, Francisco; Garcia, Joaquin; Ramirez de Arellano, M. Carmen; Lopez, Gregorio
CS Departamento Quimica Inorganica, Universidad Murcia, Murcia, E-30071, Spain
SO Helvetica Chimica Acta (1997), 80(8), 2477-2485
CODEN: HCACAV; ISSN: 0018-019X
PB Verlag Helvetica Chimica Acta AG
DT Journal
LA English
AB The hydroxo complex (Bu₄N)₂[Ni₂(C₆F₅)₂(μ-OH)₂] reacts with H₂NC₆F₅, 4-RC₆H₄NHN:NC₆H₄R-4 (ArHN₃Ar; R = H, Me, MeO), 7-aza-1H-indole (Hazind), N-phenyl-2-pyridinamine (pyNHPh), and N-phenyl-2-pyridinecarboxamide (pyCONHPh) at room temperature in AcMe to give the binuclear complexes (Bu₄N)₂[Ni₂(C₆F₅)₄(μ-C₆F₅NH)₂] and (Bu₄N)₂[{Ni(C₆F₅)₂}₂(μ-OH)(μ-azind)]], and the mononuclear complexes Bu₄N[Ni(C₆F₅)₂(ArN₃Ar)], Bu₄N[Ni(C₆F₅)₂(pyNPh)], and Bu₄N[Ni(C₆F₅)₂(pyCONPh)], resp. The hydroxo complex (Bu₄N)₂[{Ni(C₆F₅)₂(μ-OH)₂}₂] promotes the nucleophilic addition of H₂O to 2-pyridinecarbonitrile, H₂NCH₂CN, and Me₂NCH₂CN forming complexes containing 2-pyridinecarboxamidato, 2-aminoacetamidato, and 2-(dimethylamino)acetamidato ligands, resp. A single-crystal x-ray diffraction study of (Bu₄N)₂[{Ni(C₆F₅)₂}₂(μ-OH)(μ-azind)] established the binuclear nature of the anion. The 2 Ni atoms are bridged by an OH group and a 7-aza-7H-indol-7-yl group, but the central Ni-O-Ni-N-C-N ring is not planar. The dihedral angle between the Ni-O-Ni and Ni-N-C-N-Ni planes is 84.4°.
CC 29-13 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75, 78
IT 201152-64-9P 201152-68-3P 201152-70-7P

201152-73-0P 201152-75-2P 201152-77-4P 201152-79-6P

201152-81-0P 201152-83-2P 201233-98-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 201152-68-3P 201152-70-7P 201152-73-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 201152-68-3 HCAPLUS

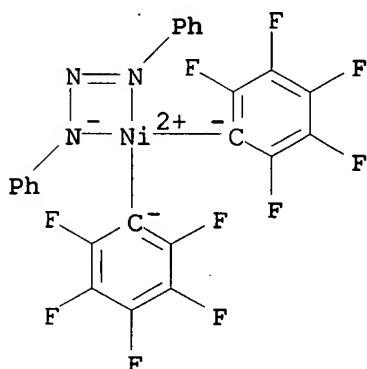
CN 1-Butanaminium, N,N,N-tributyl-, (SP-4-2)-(1,3-diphenyl-1-triazenato- κ N1, κ N3)bis(pentafluorophenyl)nickelate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 201152-67-2

CMF C24 H10 F10 N3 Ni

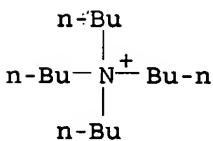
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RN 201152-70-7 HCAPLUS

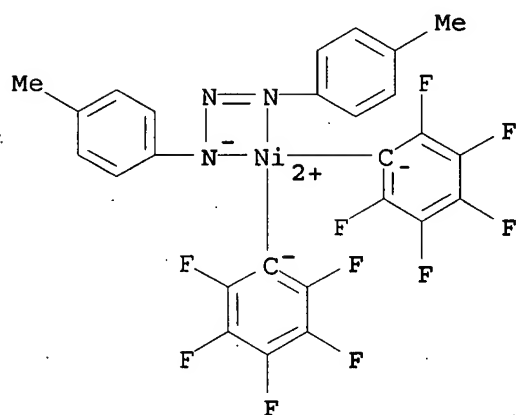
CN 1-Butanaminium, N,N,N-tributyl-, (SP-4-2)-[1,3-bis(4-methylphenyl)-1-triazenato- κ N1, κ N3]bis(pentafluorophenyl)nickelate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 201152-69-4

CMF C26 H14 F10 N3 Ni

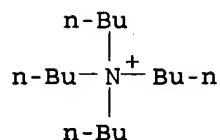
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



RN 201152-73-0 HCAPLUS

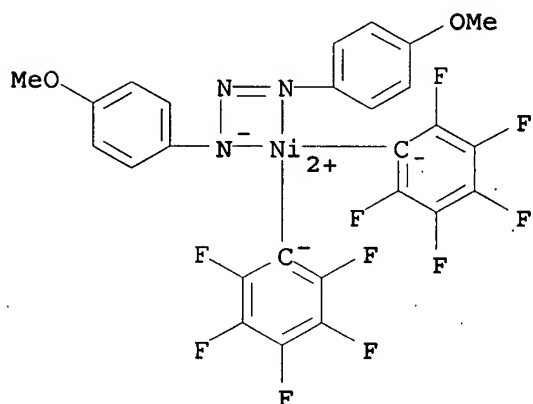
CN 1-Butanaminium, N,N,N-tributyl-, (SP-4-2)-[1,3-bis(4-methoxyphenyl)-1-triazenato-κN1,κN3]bis(pentafluorophenyl)nickelate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 201152-72-9

CMF C26 H14 F10 N3 Ni O2

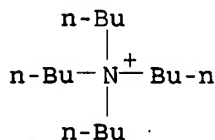
CCI CCS



CM 2

CRN 10549-76-5

CMF C16 H36 N



L13 ANSWER 5 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1996:251486 HCAPLUS

DN 125:47603

TI Transition metal complexes with amidinato ligands: the ubiquitous tris-chelated structural motif

AU Cotton, F. Albert; Daniels, Lee M.; Maloney, David J.; Murillo, Carlos A.

CS Department of Chemistry and Laboratory for Molecular Structure and Bonding, Texas A and M University, College Station, TX, 77843, USA

SO Inorganica Chimica Acta (1996), 242(1-2), 31-42

CODEN: ICHAA3; ISSN: 0020-1693

PB Elsevier

DT Journal

LA English

AB The syntheses, crystal and mol. structures of eight transition metal compds. possessing ligands [(p-tol)NC(H)N(p-tol)]- (DTolF), [PhNC(H)NPh]- (DPhF), and the corresponding triazenato ligands [PhNNNPh]- (DPhTA) are presented. Common to all of the compds. is a homoleptic tris-chelated structure with virtual D3 symmetry. Crystallog. data for the compds. are as follows: Cr(DPhF)3·tol, monoclinic, space group C2/c with a = 21.015(3), b 15.925(2), c 12.896(1) Å, β 116.628(8)° and Z = 4; Cr(DTolF)3 and Fe(DTolF)3, monoclinic, space group C2/c with a = 12.654(2), 12.725(4) Å, b 33.393(2), 33.440(7) Å, c 9.273(2), 9.281(1) Å, β 94.17(2), 93.80(2)° and Z = 4, resp.; Fe(DPhF)3, orthorhombic, Pccn with a 10.902(2), b 18.539(3), c 16.412(3) Å and Z = 4; Ru(DTolF)3·0.57C6H14 and Co(DTolF)3·0.56C6H14, trigonal, space group R.hivin.3 with a 14.353(4), 14.100(2) Å, c 35.51(2), 36.340(8) Å and Z = 6, resp.; Fe(DPhTA)3·tol, monoclinic, I2/a with a 13.265(4), b 16.182(2), c 17.855(5) Å, β 99.53(1)° and Z = 4; [Li(THF)4][Fe(DPhTA)3], orthorhombic, Pbcn with a 13.527(1), b 17.827(2), c 20.702(2) Å and Z = 4.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 89589-62-8P 177994-79-5P 177994-80-8P 177994-82-0P 177994-84-2P
177994-86-4P 177994-88-6P 177994-90-0PRL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

IT 177994-88-6P 177994-90-0P

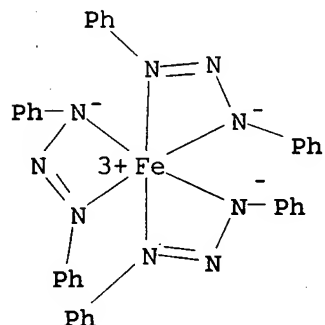
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

RN 177994-88-6 HCAPLUS

CN Iron, tris(1,3-diphenyl-1-triazenato-N1,N3)-, (OC-6-11)-, compd. with methylbenzene (1:1) (9CI) (CA INDEX NAME)

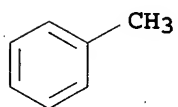
CM 1

CRN 177994-87-5
CMF C36 H30 Fe N9
CCI CCS



CM 2

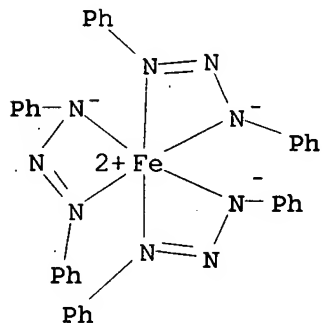
CRN 108-88-3
CMF C7 H8



RN 177994-90-0 HCAPLUS
CN Lithium(1+), tetrakis(tetrahydrofuran)-, (T-4)-, (OC-6-11)-tris(1,3-diphenyl-1-triazenato-N1,N3)ferrate(1-) (9CI) (CA INDEX NAME)

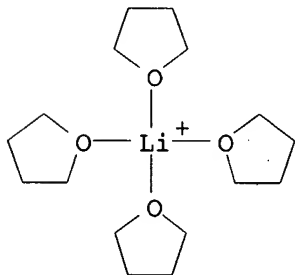
CM 1

CRN 177994-89-7
CMF C36 H30 Fe N9
CCI CCS



CM 2

CRN 48186-27-2
 CMF C16 H32 Li O4
 CCI CCS



- L13 ANSWER 6 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1995:861112 HCAPLUS
 DN 124:56205
 TI Metal complexes of phenylenebistriazenides: synthesis and crystal structures of $[\text{Cp}(\text{CO})_2\text{M}]_2(1,2\text{-PhN}_3\text{C}_6\text{H}_4\text{N}_3\text{Ph})$ ($\text{M} = \text{Mo}, \text{W}$)
 AU Horner, M.; Galvan, J. M.; Beck, J.
 CS Dep. Quimica, Univ. Federal Santa Maria, Santa Maria, Brazil
 SO Zeitschrift fuer Anorganische und Allgemeine Chemie (1995), 621(10), 1755-60
 CODEN: ZAACAB; ISSN: 0044-2313
 PB Barth
 DT Journal
 LA German
 AB $[\text{Cp}(\text{CO})_2\text{M}]_2(1,2\text{-PhN}_3\text{C}_6\text{H}_4\text{N}_3\text{Ph})$ [$\text{M} = \text{Mo}(1), \text{M} = \text{W}(2)$] is formed in the reaction of $\text{Cp}(\text{CO})_3\text{MCl}$ with $\text{PhN}_3(\text{H})\text{C}_6\text{H}_4\text{N}_3(\text{H})\text{Ph}$ and $\text{C}_2\text{H}_5\text{ONa}$ in a THF/ethanol mixture 1 Crystallizes from toluene as dark red crystals (triclinic, P.hivin.1, $a = 1499.3(9)\text{pm}$, $b = 1734.0(7)\text{pm}$, $c = 1852.8(8)\text{pm}$, $\alpha = 66.84(3)^\circ$, $\beta = 78.25(4)^\circ$, $\gamma = 77.19(4)^\circ$). The unit cell contains four complexes with two independent complexes in the asym. unit, and eight solvent mols. 2 Crystallizes from THF as yellow crystals free from solvent mols. (triclinic, P.hivin.1, $a = 979.0(5)\text{pm}$, $b = 1152.8(5)\text{pm}$, $c = 1475.8(5)\text{pm}$, $\alpha = 98.26(4)^\circ$, $\beta = 104.93(4)^\circ$, $\tau = 101.03(4)^\circ$, $Z = 2$). 1 And 2 are discrete mol. complexes with a 1,2-bis(phenyltriazenido)phenylligand, $(\text{PhN}_3\text{C}_6\text{H}_4\text{N}_3\text{Ph})_2^-$, chelating the metal atoms of two $\text{Cp}(\text{CO})_2\text{M}$ units with the N atoms N1 and N3 of both N3 groups. Due to the sterical pretension of the $\text{Cp}(\text{CO})_2\text{M}$ units the phenylenebistriazenido ligand deviates strongly from planarity that is found in the metal complexes characterized so far.
 CC 29-11 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 75
 IT 172295-59-9P 172295-60-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)
 IT 172295-60-2P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)
 RN 172295-60-2 HCAPLUS
 CN Molybdenum, tetracarbonylbis(η^5 -2,4-cyclopentadien-1-yl) [μ -[[1,1'-(1,2-phenylene)bis[3-phenyl-1-triazenato]] (2-)-N1,N3:N1',N3']] di-, compd. with methylbenzene (1:2) (9CI) (CA INDEX NAME)

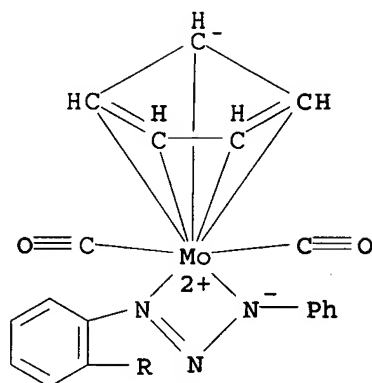
CM 1

CRN 172295-58-8

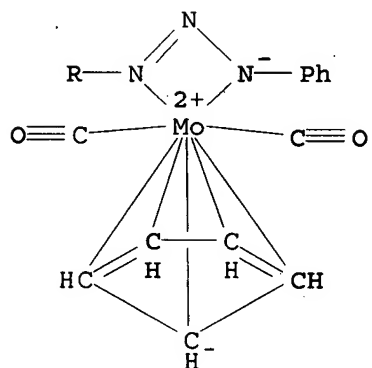
CMF C32 H24 Mo2 N6 O4

CCI CCS

PAGE 1-A



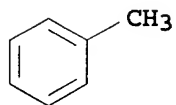
PAGE 2-A



CM 2

CRN 108-88-3

CMF C7 H8



DN 122:176948

TI Chemistry of [Ru(1,3-diaryltriazenide)₂(PPh₃)₂]_z (z = 0, +). A Hindered RuII,IIIN₂P₂ Family with Valence-Independent Geometry

AU Menon, Mahua; Pramanik, Amitava; Chattopadhyay, Surajit; Bag, Nilkamal; Chakravorty, Animesh

CS Department of Inorganic Chemistry, Indian Association for the Cultivation of Science, Calcutta, 700 032, India

SO Inorganic Chemistry (1995), 34(6), 1361-7

CODEN: INOCAJ; ISSN: 0020-1669

PB American Chemical Society

DT Journal

LA English

AB The reaction of Ru(PPh₃)₃Cl₂ with 1,3-diaryltriazenes, (p-RC₆H₄N)(p-RC₆H₄NH)N (HRL; R = H, Me, OMe, Cl), in ethanol affords RuII(RL)₂(PPh₃)₂, which is oxidized by cerium(IV) to the trivalent complex isolated as [RuIII(RL)₂(PPh₃)₂]PF₆. Yields are near-quant. for both oxidation states. The x-ray structures of Ru(HL)₂(PPh₃)₂ and [Ru(ClL)₂(PPh₃)₂]PF₆·2CH₂Cl₂ revealed centrosym. trans geometry for both RuN₄P₂ coordination spheres. The four-membered triazenide chelate rings are near-perfect planes, and the average Ru-N length decreases by .apprx.0.04 Å in going from the bivalent to the trivalent complex due to the contraction of the metal radius in the primarily σ-bonded RuN₄ frame. But the Ru-P length is .apprx.0.07 Å shorter in the bivalent complex because of strong Ru-P 4dπ-3dπ back-bonding, which is lacking in the trivalent complex. Studies on the energetics of models revealed that cis geometry is precluded by severe steric crowding of triazenide relative to the phosphine aryl functions. The repulsions are very strong even in the best rotameric configurations of triazene aryls. The bivalent complexes are diamagnetic and display an MLCT band near 500 nm. The trivalent species have one unpaired electron (1.78-1.86 μB), and they show a strong band near 1200 nm which was assigned to LMCT excitation (au → ag, bg) from model EHMO results. The E_{1/2} values of the stereoretentive ruthenium(III)-ruthenium(II) couple lie in the range 0.08-0.37 V vs. SCE, increasing in the order of OMe < Me < H < Cl. Crystal data for the complexes are as follows: Ru(HL)₂(PPh₃)₂, crystal system triclinic, space group P.hivin.1; a 10.964(6), b 11.821(7), c 21.183(9) Å, α 76.52(4), β 78.17(4), γ 71.18(4)°, Z = 2, R = 3.93%, Rw = 4.32%; [Ru(ClL)₂(PPh₃)₂]PF₆·2CH₂Cl₂, crystal system triclinic; space group P.hivin.1, a 11.093(6), b 12.386(4), c 13.757(6) Å, α 104.11(3), β 103.48(4), γ 110.57(3)°, Z = 1, R = 5.00%, Rw = 5.64%.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 160895-02-3P 160895-04-5P 160895-06-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and electrochem. reduction)

IT 160895-08-9P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and mol. structure and electrochem. reduction)

IT 160895-02-3P 160895-04-5P 160895-06-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

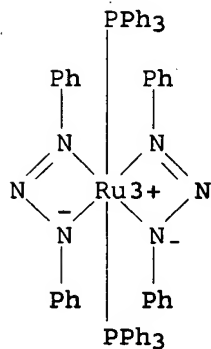
(preparation and electrochem. reduction)

RN 160895-02-3 HCAPLUS

CN Ruthenium(1+), bis(1,3-diphenyl-1-triazenato-N1,N3)bis(triphenylphosphine)-, (OC-6-12)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

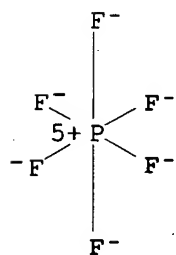
CM 1

CRN 160895-01-2
CMF C60 H50 N6 P2 Ru
CCI CCS



CM 2

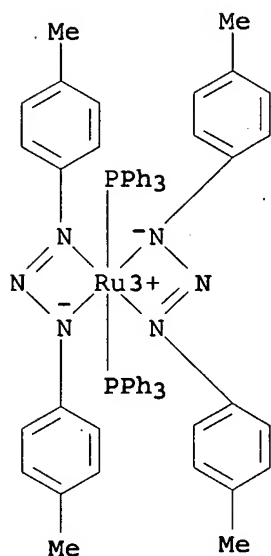
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 160895-04-5 HCAPLUS
CN Ruthenium(1+), bis[1,3-bis(4-methylphenyl)-1-triazenato-
N1,N3]bis(triphenylphosphine)-, (OC-6-12)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 160895-03-4
CMF C64 H58 N6 P2 Ru
CCI CCS

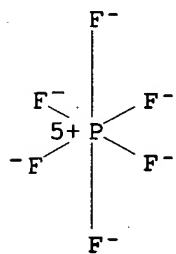


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 160895-06-7 HCAPLUS

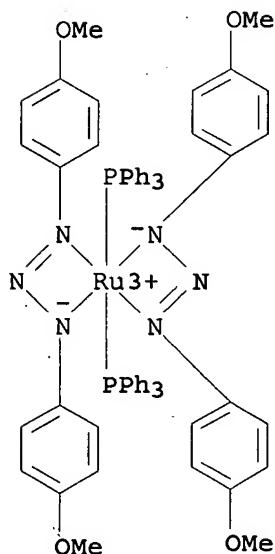
CN Ruthenium(1+), bis[1,3-bis(4-methoxyphenyl)-1-triazenato-N1,N3]bis(triphenylphosphine)-, (OC-6-12)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 160895-05-6

CMF C64 H58 N6 O4 P2 Ru

CCI CCS

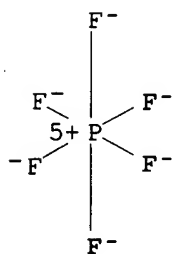


CM 2

CRN 16919-18-9

CMF P6 P

CCI CCS



IT 160895-08-9P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and mol. structure and electrochem. reduction)

RN 160895-08-9 HCAPLUS

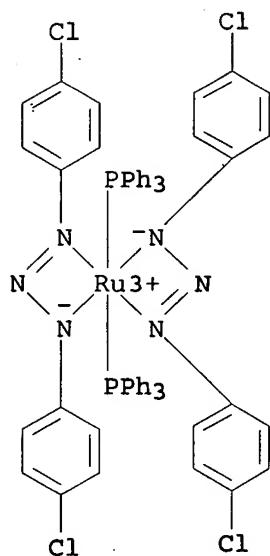
CN Ruthenium(1+), bis[1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3]bis(triphenylphosphine)-, (OC-6-12)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 160895-07-8

CMF C60 H46 Cl4 N6 P2 Ru

CCI CCS

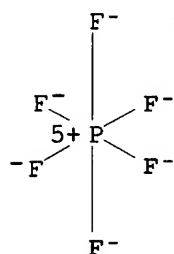


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L13 ANSWER 8 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:352169 HCAPLUS

DN 122:145259

TI Radical Anion Complexes of Tris(1,3-diphenyltriazenido)aluminum

AU Braddock-Wilking, Janet; Leman, John T.; Farrar, Christian T.;

Cosgrove-Larsen, Sarah A.; Singel, David J.; Barron, Andrew R.

CS Department of Chemistry, Harvard University, Cambridge, MA, 02138, USA

SO Journal of the American Chemical Society (1995), 117(6), 1736-45

CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

AB Electrochem: studies of $\text{Al}(\text{dpt})_3$ (Hdpt = 1,3-diphenyltriazene) by cyclic voltammetry in THF solution reveal three successive pseudoreversible 1-electron reduction waves ($E_{1/2}$ = -1.50, -1.84, and -2.16 V). The chemical reduction of $\text{Al}(\text{dpt})_3$ by sodium metal in THF allows for the isolation of the radical anion complexes $[\text{Na}(\text{THF})_x]_n[\text{Al}(\text{dpt})_3]$, n = 1(1), 2(2), and 3(3).

KATHLEEN FULLER EIC1700 571/272-2505

Characterization by EPR, NMR, UV-visible, and x-ray photoelectron (XP) spectroscopy, in addition to the x-ray structural determination of

[PPN][Al(dpt)3],

supports the formation of the 1st homologous series of ligand-centered aluminum(III) radical anion complexes. Analogous electrochem. reduction series are observed for the p-methyl- and p-methoxy-substituted triazenides. The dependence of the complex reduction potentials is discussed with respect to the UV-visible spectra of the unreduced complex and the ligand's Hammett substituent consts. (σ). But irreversible electrochem. reduction (-1.5 to -2.2 V) occurs for the pentafluoro- and p-fluoro-, p-chloro-, and p-bromo-substituted triazenido complexes. Irreversible reduction also occurs for the alkyl and aryl oxide compds. Al(R)2(dpt) (R = iBu, tBu), Al(iBu)(dpt)2, Al(BHT)2(dpt), and Al(BHT)(dpt)2 (BHT-H = 2,6-di-tert-butyl-4-methylphenol). Ab initio MO calcns. were carried out on the model compds. Al(HNNNH)3 and [Al(HNNNH)3]3-. The identity of the frontier MOs and calculated structures are considered in relation to exptl. data.

CC 72-2 (Electrochemistry)

Section cross-reference(s): 75, 78

IT 161128-10-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and ESR and UV-visible spectra of)

IT 161128-11-6P 161128-12-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and UV-visible spectra of)

IT 161128-10-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and ESR and UV-visible spectra of)

RN 161128-10-5 HCAPLUS

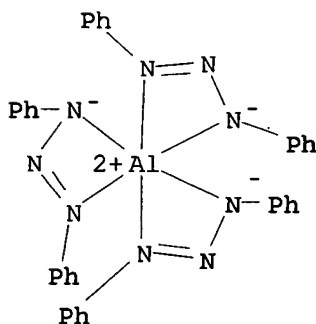
CN Sodium(1+), tetrakis(tetrahydrofuran)-, (OC-6-11)-tris(1,3-diphenyl-1-triazenato-N1,N3)aluminate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 161127-98-6

CMF C36 H30 Al N9

CCI CCS

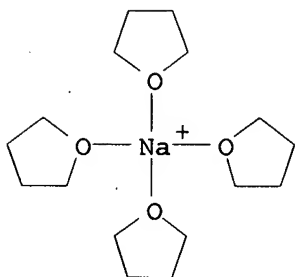


CM 2

CRN 20418-58-0

CMF C16 H32 Na O4

CCI CCS



IT 161128-11-6P 161128-12-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and UV-visible spectra of)

RN 161128-11-6 HCAPLUS

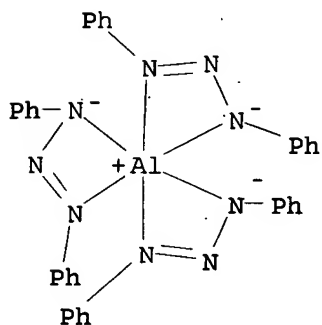
CN Sodium(1+), tetrakis(tetrahydrofuran)-, (OC-6-11)-tris(1,3-diphenyl-1-triazenato-N1,N3)aluminate(2-) (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161128-02-5

CMF C36 H30 Al N9

CCI CCS

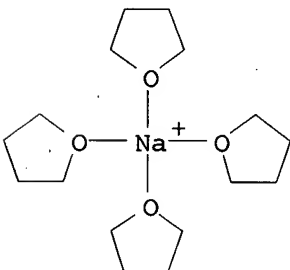


CM 2

CRN 20418-58-0

CMF C16 H32 Na O4

CCI CCS



RN 161128-12-7 HCAPLUS

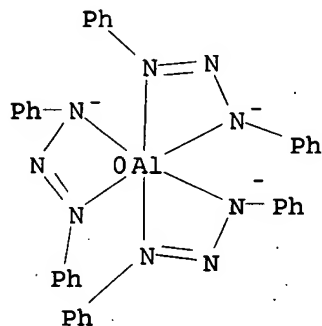
CN Sodium(1+), tetrakis(tetrahydrofuran)-, (OC-6-11)-tris(1,3-diphenyl-1-triazenato-N1,N3)aluminate(3-) (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 161128-06-9

CMF C36 H30 Al N9

CCI CCS

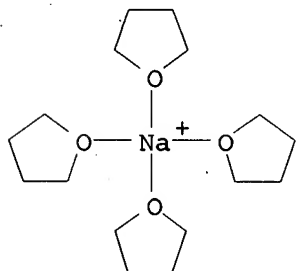


CM 2

CRN 20418-58-0

CMF C16 H32 Na O4

CCI CCS



L13 ANSWER 9 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1995:284559 HCAPLUS

DN 122:265468

TI Reactions of R₂Al-AlR₂ (R = CH(SeMe₃)₂) with trimethylsilyl azide - insertion into the Al-Al bond and formation of a trimeric dialkylaluminum azide

AU Uhl, Werner; Gerding, Rolf; Pohl, Siegfried; Saak, Wolfgang

CS Fachbereich Chemie, Universitaet Oldenburg, Oldenburg, D-26111, Germany

SO Chemische Berichte (1995), 128(1), 81-6

CODEN: CHBEAM; ISSN: 0009-2940

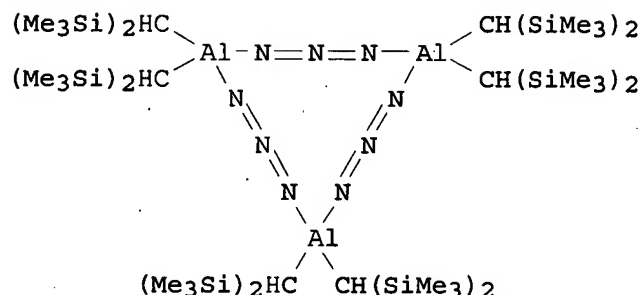
PB VCH

DT Journal

LA German

KATHLEEN FULLER EIC1700 571/272-2505

GI



AB Tetrakis[bis(trimethylsilyl)methyl]dialuminum(4) (1) reacts with trimethylsilyl azide under insertion of one nitrogen atom into the Al-Al bond. As shown by NMR spectra and crystal structure the product contains three and four coordinated Al structure the product contains three and four coordinated Al atoms due to the coordination of the α -nitrogen atom of the azide group to one of the Al atoms. An electronically delocalized N₃-system is formed with a N-N bond length of 132.0 pm and a bond order of 1.5 for both N-N bonds. With an excess of trimethylsilyl azide further reaction is observed only under mild irradiation conditions with

an

exchange of the azide group between Si and Al and formation of Me₆Si₂ and the dialkylaluminum azide I, which is better synthesized by the reaction of Me₃SiN₃ with ClAl[CH(SiMe₃)₂]₂. The sterically highly shielded aluminum azide I is a trimer in the solid state showing a non-planar 12-membered Al₃N₉ heterocycle with short N-N bonds (114 pm).

CC

29-5 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 75

IT

162524-77-8P 162524-78-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

IT

162524-78-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)

RN

162524-78-9 HCAPLUS

CN

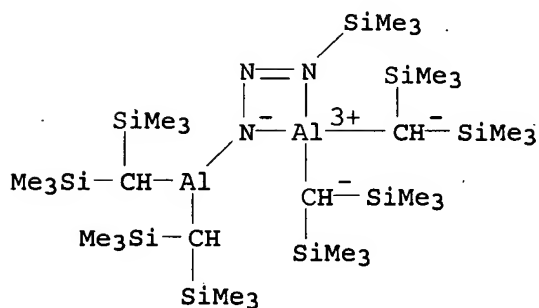
Aluminum, tetrakis[bis(trimethylsilyl)methyl] [μ -[1-(trimethylsilyl)-1-triazenato-N1,N3:N3]]di-, compd. with methylbenzene (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 162524-76-7

CMF C31 H85 Al2 N3 Si9

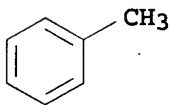
CCI CCS



CM 2

CRN 108-88-3

CMF C7 H8

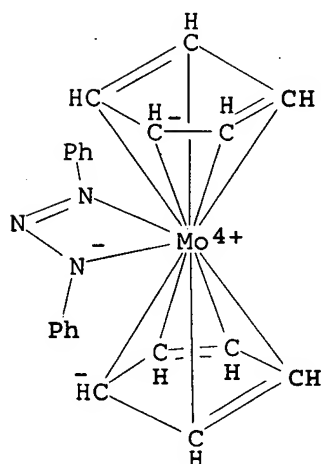


L13 ANSWER 10 OF 35 HCAPLUS . COPYRIGHT 2007 ACS on STN
AN 1994:119240 HCAPLUS
DN 120:119240
TI The use of microelectrodes in kinetic studies of homogeneous chemical reactions of molybdenum complexes
AU Fonseca, A. M.; Queiros, M. A.; Dias, A. R.
CS Cent. Quim. Pura Apl., Univ. Minho, Braga, 4719, Port.
SO NATO ASI Series, Series C: Mathematical and Physical Sciences (1993), 385 (Molecular Electrochemistry of Inorganic, Bioinorganic and Organometallic Compounds), 649-52
CODEN: NSCSDW; ISSN: 0258-2023
DT Journal
LA English
AB The rate consts. of chemical reactions of the cations obtained after electrochem. oxidation of biscyclopentadienylmolybdenum complexes were determined,
using microelectrodes. Further information from low scan expts. and from the products of chemical oxidation allowed the proposal of the reaction mechanisms.
CC 72-2 (Electrochemistry)
Section cross-reference(s): 22, 67
IT 114724-23-1 153047-75-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(electrochem. oxidation of, determination of kinetic parameters of chemical steps in)
IT 114724-23-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(electrochem. oxidation of, determination of kinetic parameters of chemical steps in)
RN 114724-23-1 HCAPLUS
CN Molybdenum(1+), bis(eta5-2,4-cyclopentadien-1-yl)(1,3-diphenyl-1-triazenato-N1,N3)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

KATHLEEN FULLER EIC1700 571/272-2505

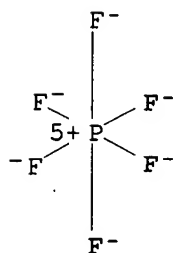
CM 1

CRN 114724-22-0
CMF C22 H20 Mo N3
CCI CCS



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



L13 ANSWER 11 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1993:626023 HCAPLUS
DN 119:226023
TI 1,3-Diaryltriazenido compounds of aluminum
AU Leman, John T.; Braddock-Wilking, Janet; Coolong, Alanna J.; Barron, Andrew R.
CS Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA
SO Inorganic Chemistry (1993), 32(20), 4324-36
CODEN: INOCAJ; ISSN: 0020-1669
DT Journal
LA English
AB Reaction of $\text{AlH}(\text{iBu})_2$ with 1 and 2 equiv of 1,3-diphenyltriazeno, $\text{PhN}:\text{NNHPh}$, yields [cyclic] $\text{Al}(\text{iBu})_2[\text{N}(\text{Ph})\text{NN}(\text{Ph})]$ (1) and [cyclic] $\text{Al}(\text{iBu})[\text{N}(\text{Ph})\text{NN}(\text{Ph})]_2$ (2), resp. Compound 2 undergoes ligand exchange in

solution to give an equimolar mixture of 1 and [cyclic] Al[N(Ph)NN(Ph)]₃. The reaction of Al(tBu)₃ with PhN:NNHPh gives [cyclic] Al(tBu)₂[N(Ph)NN(Ph)] (3) as the only product. Addition of 1 equiv of PhN:NNHPh to AlMe₂(BHT)(OEt₂) (BHT-H = 2,6-di-tert-butyl-4-methylphenol) allows for the isolation of [cyclic] AlMe(BHT)[N(Ph)NN(Ph)] (4); however, a higher equiv. of PhN:NNHPh yields only [cyclic] Al[N(Ph)NN(Ph)]₃. The bis(triazenide) complex [cyclic] Al(BHT)[N(Ph)NN(Ph)]₂ (5) is isolated from the reaction of PhN:NNHPh with AlH₂(BHT)(NMe₃), while [cyclic] Al(BHT)₂[N(Ph)NN(Ph)] (6) is formed from the reaction of PhN:NNHPh with AlMe(BHT)₂. Although the reaction of 1 with H₂salen [N,N'-ethylenebis(salicylideneamine)] does not yield [cyclic] Al[N(Ph)NN(Ph)](salen) (8) but rather yields Al(iBu)(salen) (7), compound 8 may be isolated from interaction of PhN:NNHPh with AlMe(salen). The reaction between AlMe₃ and 3 equiv of substituted 1,3-diaryltriazenes, ArN:NNHAr, yields the 6-coordinate aluminum tris(1,3-diaryltriazenido) compds., [cyclic] Al[N(Ar)NN(Ar)]₃ [Ar = 2-MeC₆H₄ (9), 4-MeC₆H₄ (10), 4-MeOC₆H₄ (11), 4-FC₆H₄ (12), 4-ClC₆H₄ (13), 4-BrC₆H₄ (14), C₆F₅ (15)]. The unsym. diaryltriazenide complex [cyclic] Al[N(Ph)NN(4-MeOC₆H₄)]₃ (16) adopts a trans-meridional conformation. The spectroscopic characterization of the tris(triazenido) complexes is discussed with respect to the nature of the aryl substituents. The X-ray structures of 1, 6, AlMe(salen), 9, 11, 13, (C₆F₅)N:NN(H)(C₆F₅), and (2-MeC₆H₄)N:NN(H)(2-MeC₆H₄).(2-MeC₆H₄)NH₂ have been determined

CC 29-5 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75, 78

IT 150725-08-9P 150725-11-4P 150725-13-6P 150725-15-8P
150725-19-2P 150725-20-5P 150731-27-4P 150731-29-6P
150731-32-1P 150731-33-2P 150731-34-3P 150882-61-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

IT 150725-19-2P 150725-20-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

RN 150725-19-2 HCAPLUS

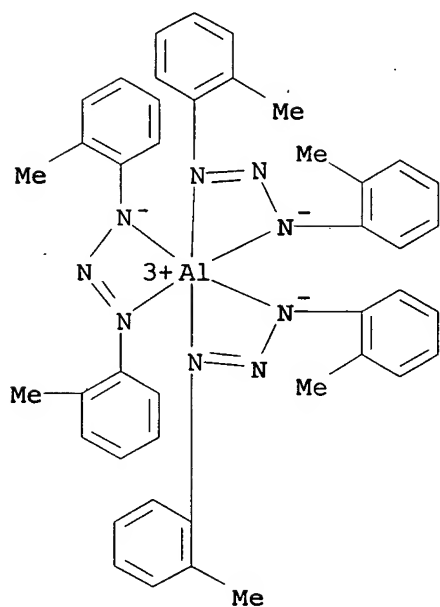
CN Aluminum, tris[1,3-bis(2-methylphenyl)-1-triazenato-N1,N3]-, (OC-6-11)-, compd. with methylbenzene (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 150725-11-4

CMF C42 H42 Al N9

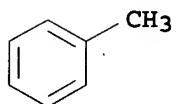
CCI CCS



CM 2

CRN 108-88-3

CMF C7 H8



RN 150725-20-5 HCAPLUS

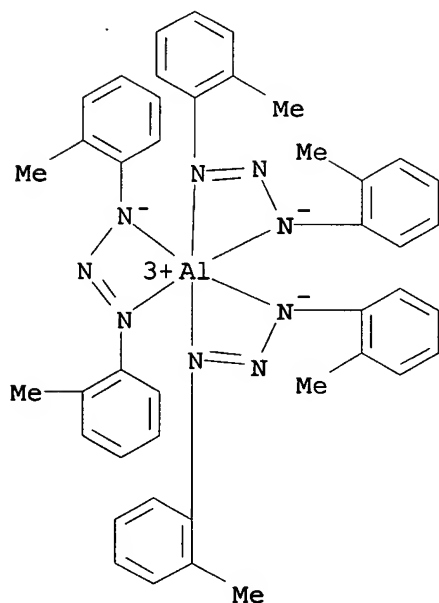
CN Aluminum, tris[1,3-bis(2-methylphenyl)-1-triazenato-N1,N3]-, (OC-6-11)-, compd. with 2-methylbenzenamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 150725-11-4

CMF C42 H42 Al N9

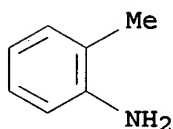
CCI CCS



CM 2

CRN 95-53-4

CMF C7 H9 N



L13 ANSWER 12 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1992:625163 HCAPLUS
 DN 117:225163
 TI Indium complexes of 1,3-diphenyltriazene
 AU Leman, John T.; Roman, Henry A.; Barron, Andrew R.
 CS Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA
 SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry
 (1972-1999) (1992), (14), 2183-91
 CODEN: JCDTBI; ISSN: 0300-9246
 DT Journal
 LA English
 AB The reaction of InCl_3 with PhN:NNHPh (Hdpt) in the presence of NEt_3 gives the 6-coordinate $[\text{NHet}_3][\text{InCl}_2(\text{dpt})_2]$ (1a). The interaction of 1a with $[\text{NEt}_4]\text{Cl}$ and $[\text{N}(\text{PPh}_3)_2]\text{Cl}$ allows for the isolation of $[\text{NEt}_4][\text{InCl}_2(\text{dpt})_2]$ (1b) and $[\text{N}(\text{PPh}_3)_2][\text{InCl}_2(\text{dpt})_2]$ (1c). Reaction of Lewis bases, L, with 1a yields $[\text{InCl}_2(\text{dpt})\text{L}_2]$ (L = pyridine, 3,5-dimethylpyridine, PEt_3 , 2, 3, 4, resp.; L_2 = 2,2'-bipyridine, 1,10-phenanthroline, $\text{R}_2\text{PCH}_2\text{CH}_2\text{PR}_2$ (R = Me, Et) 5, 6, 7, 8, resp.). The mechanism for these reactions is discussed. No reaction is observed between 1b and 3,5-dimethylpyridine. The x-ray structures of 1a, 3, 4, and 5 were determined 2-4 Are readily soluble in aromatic

KATHLEEN FULLER EIC1700 571/272-2505

hydrocarbon solvents, while 5-8 are insol. as a consequence of the presence of a supramol. architecture involving dipolar In-Cl...N interactions in the solid state. All new compds. were characterized by ^1H , ^{13}C - $\{^1\text{H}\}$ and ^{31}P - $\{^1\text{H}\}$ NMR and IR spectroscopy.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 143672-22-4P 143672-26-8P 143672-27-9P 143672-28-0P

143781-56-0P 144234-33-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 143781-56-0P 144234-33-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 143781-56-0 HCAPLUS

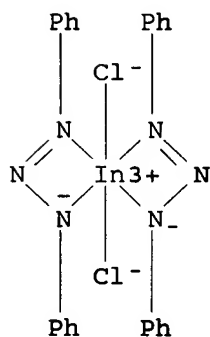
CN Methanaminium, N,N,N-triethyl-, (OC-6-22)-dichlorobis(1,3-diphenyl-1-triazenato-N1,N3)indate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 143781-55-9

CMF C24 H20 Cl2 In N6

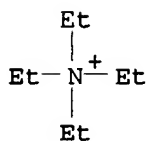
CCI CCS



CM 2

CRN 66-40-0

CMF C8 H20 N



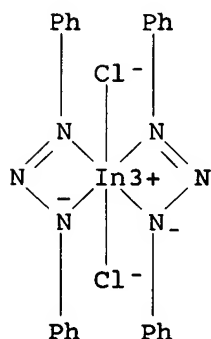
RN 144234-33-3 HCAPLUS

CN Phosphorus(1+), triphenyl(P,P,P-triphenylphosphine imidate-N)-, (T-4)-, (OC-6-22)-dichlorobis(1,3-diphenyl-1-triazenato-N1,N3)indate(1-) (9CI) (CA INDEX NAME)

CM 1

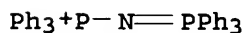
CRN 143781-55-9

CMF C24 H20 Cl2 In N6
CCI CCS

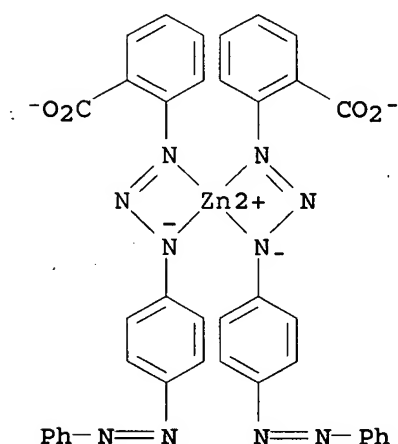


CM 2

CRN 48236-06-2
CMF C36 H30 N P2



L13 ANSWER 13 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:98490 HCAPLUS
DN 116:98490
TI A new spectrophotometric method for the determination of zinc in milk and standard samples
AU Cherian, Lata; Gupta, V. K.
CS Dep. Chem., Ravishankar Univ., Raipur, 492 010, India
SO Water, Air, and Soil Pollution (1991), 57-58, 505-12
CODEN: WAPLAC; ISSN: 0049-6979
DT Journal
LA English
AB A simple spectrophotometric method for the determination of Zn is based on the reaction of Zn with the newly synthesized reagent o-carboxyphenyldiazoaminoazobenzene in an alkaline medium where the reagent is in the acid-form. The complex exhibits an absorption maximum at 530 nm and Beer's law is valid over the concentration range of 0.0001 to 0.0008 mg mL⁻¹. Various anal. parameters for color development have been studied. The method has been successfully applied for the determination of Zn in tap water, milk and other samples.
CC 79-6 (Inorganic Analytical Chemistry)
Section cross-reference(s): 9, 17, 61
IT 139064-96-3
RL: PRP (Properties)
(molar absorptivity of)
IT 139064-96-3
RL: PRP (Properties)
(molar absorptivity of)
RN 139064-96-3 HCAPLUS
CN Zincate(2-), bis[2-[3-[4-(phenylazo)phenyl]-1-triazenyl]benzoato(2-)]-, dihydrogen, (T-4)-(9CI) (CA INDEX NAME)



● 2 H^+

L13 ANSWER 14 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1991:463612 HCAPLUS

DN 115:63612

TI Spectrophotometric determination of cadmium with o-carboxybenzenediazoaminobenzene-p-azobenzene

AU Cherian, Lata; Gupta, V. K.

CS Dep. Chem., Ravishankar Univ., Raipur, 492 010, India

SO Microchemical Journal (1991), 43(3), 198-203

CODEN: MICJAN; ISSN: 0026-265X

DT Journal

LA English

AB A spectrophotometric method is described for the determination of micro amts. of

cadmium with a new and selective reagent o-carboxybenzenediazoaminobenzene-p-azobenzene and Triton X-100. Foreign ions are masked by ascorbic acid, Rochelle salt, potassium cyanide, and sodium fluoride. Cadmium is determined after demasking the cadmium cyanide complex with formalin in aqueous solution without separation The method has been successfully applied to the

determination of

cadmium in effluent water and biol. samples.

CC 79-6 (Inorganic Analytical Chemistry)

Section cross-reference(s): 9, 61

IT 134943-35-4

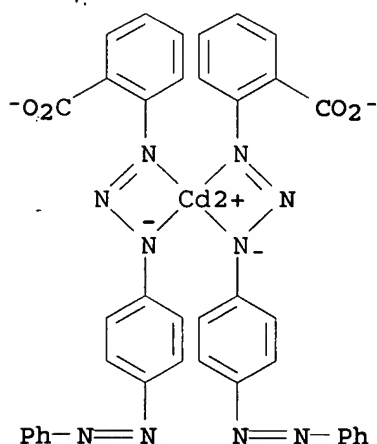
RL: PRP (Properties)
(molar absorptivity of)

IT 134943-35-4

RL: PRP (Properties)
(molar absorptivity of)

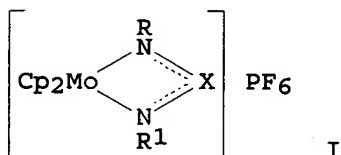
RN 134943-35-4 HCAPLUS

CN Cadmate(2-), bis[2-[3-[4-(phenylazo)phenyl]-1-triazenyl]benzoato(2-)]-, dihydrogen, (T-4)- (9CI) (CA INDEX NAME)



● 2 H⁺

L13 ANSWER 15 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1990:631589 HCAPLUS
 DN 113:231589
 TI Amidinato complexes of dicyclopentadienylmolybdenum. Synthesis and redox properties
 AU Dias, A. R.; Queiros, M. A.
 CS Cent. Quim. Estrut., Inst. Super. Tec., Lisbon, 1096, Port.
 SO Journal of Organometallic Chemistry (1990), 390(2), 193-201
 CODEN: JORCAI; ISSN: 0022-328X
 DT Journal
 LA English
 OS CASREACT 113:231589
 GI



AB Reaction of [MoCp₂Br₂] (Cp = C₅H₅) in ethanol containing NEt₃ with a range of diarylamidines gave complexes I (R, R₁ = Ph, p-Me-, p-MeOC₆H₄; x = CH, CMe, CPh) in which the amidinato ligands are bidentate. Cyclic voltammetry shows that the 17 electron species obtained after monoelectronic oxidation undergo a slow chemical reaction. The formal oxidation potentials depend on the amidinato X group and are related to those of similar complexes containing the isoelectronic diaryltriazenido ligands (X = N). Cathodic reduction gives species whose stabilities are dependent markedly on the X group. A plausible mechanism is suggested for the redns.
 CC 29-11 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 72

LEE 10/518935 09/26/2007Page 39

IT 114724-21-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(electrochem. of)

IT 114724-21-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(electrochem. of)

RN 114724-21-9 HCAPLUS

CN Molybdenum(1+), bis(η^5 -2,4-cyclopentadien-1-yl) [1-(4-methylphenyl)-3-phenyl-1-triazenato-N1,N3]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

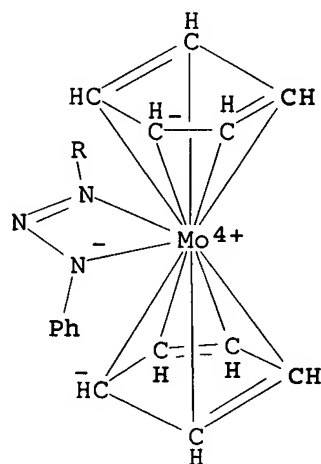
CM 1

CRN 114724-20-8

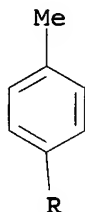
CMF C23 H22 Mo N3

CCI CCS

PAGE 1-A



PAGE 2-A

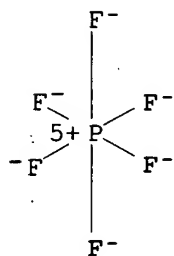


CM 2

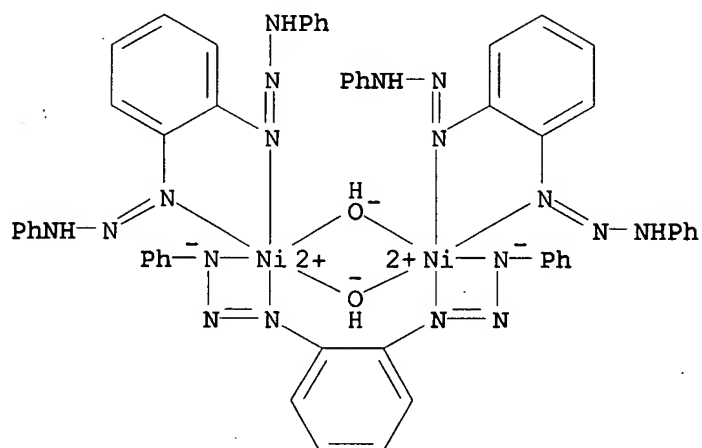
CRN 16919-18-9

CMF F6 P

CCI CCS



L13 ANSWER 16 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1989:50130 HCAPLUS
 DN 110:50130
 TI Synthesis and crystal structure of (PhN3)2C6H4[(OH)Ni(PhN3H)2C6H4]2.2THF, a dimeric nickel(II) complex with a bridging bistriazenido ligand
 AU Hoerner, Manfredo; Fenner, Hertton; Hiller, Wolfgang; Beck, Johannes
 CS Dep. Quim., Univ. Fed. Santa Maria, Santa Maria, 97.111, Brazil
 SO Zeitschrift fuer Naturforschung, B: Chemical Sciences (1988), 43(9), 1174-8
 CODEN: ZNBSEN; ISSN: 0932-0776
 DT Journal
 LA German
 AB (PhN3)2C6H4[(OH)Ni(PhN3H)2C6H4]2.2THF is obtained by the reaction of [(PhN3)2C6H4]Na2 with aqueous NiCl2. It crystallizes from THF/hexane in the monoclinic space group P21/n, with a 1574.6(3), b 2498.5(2), c 1629.2(2) pm, β 93.909(3)°, and Z = 4. Refinement of 3561 reflections with $I > 3\sigma(I)$ gave R = 0.077. The Ni atoms are bridged by the bis(phenyltriazenidyl)benzene group and 2 hydroxyl groups. Two neutral bis(phenyltriazenyl)benzene groups chelate each Ni atom to complete the distorted coordination sphere.
 CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 75
 IT 118422-67-6P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)
 IT 118422-67-6P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystal structure of)
 RN 118422-67-6 HCAPLUS
 CN Nickel, di- μ -hydroxy[μ -[[1,1'-(1,2-phenylene)bis[3-phenyl-1-triazenato]](2-)-N1,N3:N1',N3']]bis[1,1'-(1,2-phenylene)bis[3-phenyl-1-triazeno]-N1,N1']di-, stereoisomer, compd. with tetrahydrofuran (1:2) (9CI) (CA INDEX NAME)
 CM 1
 CRN 118422-66-5
 CMF C54 H48 N18 Ni2 O2
 CCI CCS



CM 2

CRN 109-99-9

CMF C4 H8 O



L13 ANSWER 17 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:33022 HCAPLUS

DN 110:33022

TI Use of a cadmium-New Cadion-emulsifier OP complex for the spectrophotometric determination of available cadmium in acidic soils

AU Qiu, Xing Chu; Zhu, Ying Quan; Yan, Jian Ping

CS Environ. Sci. Res. Inst., Ganzhou, Peop. Rep. China

SO Analyst (Cambridge, United Kingdom) (1988), 113(8), 1329-31

CODEN: ANALAO; ISSN: 0003-2654

DT Journal

LA English

AB A simple, rapid and sensitive spectrophotometric method for determining cadmium has been developed on the basis of a study of the color reaction of cadmium with New Cadion in the presence of emulsifier OP. The colored complex with an absorption maximum at 520 nm is formed at pH 9.34-10.80. The calibration graph is linear from 0 to 4 µg of cadmium per 25 mL and the molar absorptivity is $1.64 \times 10^5 \text{ L mol}^{-1} \text{ cm}^{-1}$. The molar ratio of Cd^{2+} to New Cadion in the complex was established as 1:2. Cadmium in soil samples can be concentrated and separated from interfering ions by extraction with iso-Bu

Me ketone. Results obtained by applying the proposed method to acidic soil samples agree well with those obtained by atomic absorption spectrometry.

CC 79-6 (Inorganic Analytical Chemistry)

Section cross-reference(s): 19

IT 117992-62-8 118179-95-6

RL: PRP (Properties)

(spectrum of)

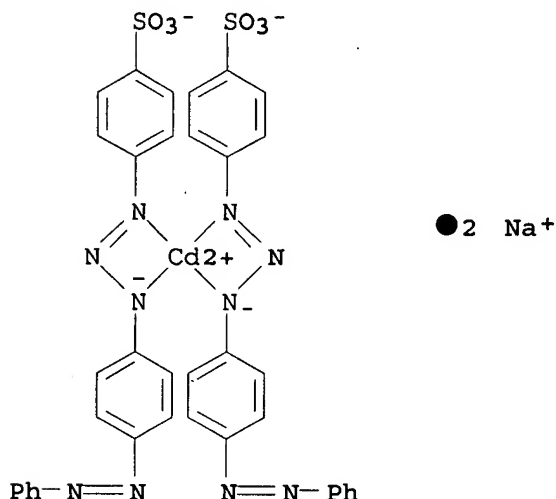
KATHLEEN FULLER EIC1700 571/272-2505

IT 118179-95-6

RL: PRP (Properties)
(spectrum of)

RN 118179-95-6 HCAPLUS

CN Cadmate(2-), bis[4-[3-[4-(phenylazo)phenyl]-1-triazenyl]benzenesulfonato(2-)]-, disodium, (T-4)- (9CI) (CA INDEX NAME)



L13 ANSWER 18 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1988:503583 HCAPLUS

DN 109:103583

TI Synthesis and structure of 1,5-bis(tolyl)pentaazadienido complexes of iron(II) and ruthenium(I): [Fe(tolN5tol)2]2 and [Ru(CO)3(tolN5tol)]2

AU Schmid, Raimund; Straehle, Joachim

CS Inst. Anorg. Chem., Univ. Tuebingen, Tuebingen, D-7400/1, Fed. Rep. Ger.

SO Zeitschrift fuer Naturforschung, B: Chemical Sciences (1988), 43(5), 533-9

CODEN: ZNBSEN; ISSN: 0932-0776

DT Journal

LA German

AB The reaction of Fe(CO)4I2 with Ag(tolN5tol) (HL = 1,5-bis(p-tolyl)pentaazadiene) in THF yields dark violet, O-sensitive [Fe(tolN5tol)2]2 (I), whereas for Ru(CO)4I2 the reaction with Ag(tolN5tol) occurs under reduction to Ru(I), and brownish, air stable [Ru(CO)3(tolN5tol)]2 (II) is obtained. I crystallizes from THF as I·THF in the monoclinic space group P21/c with a 1395.7(4), b 2226.5(9), c 1973.5(7) pm, β 105.10(2)°, Z = 4. In the binuclear complex 4 pentaazadienido anions act as (N1,N3)-η2, (N5)-η1 bridging ligands coordinating the Fe atoms octahedrally. II forms triclinic crystals with the space group P.hivin.1 and a 1368.6(6), b 1393.7(6), c 1076.1(5) pm, α 104.59(4), β 107.36(4), γ 73.90(3)°, Z = 2. Two pentaazadienido ligands bridge 2 Ru(CO)3+ units with their atoms N1 and N3. In addition, the Ru atoms are connected by a Ru-Ru single bond of 267.5 pm. In I as well as in II the pentaazadienido ligands exhibit planar N5 zigzag chains in the all-trans configuration. The N-N-distances are 124.2-137.4 pm.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 116024-75-0P 116024-76-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

IT 116024-75-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

RN 116024-75-0 HCAPLUS

CN Iron, tetrakis[μ -[1,5-bis(4-methylphenyl)-1,3-pentazadienato-
N1,N3:N5]]di-, stereoisomer, compd. with tetrahydrofuran (1:1) (9CI) (CA
INDEX NAME)

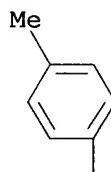
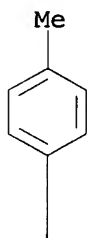
CM 1

CRN 116024-74-9

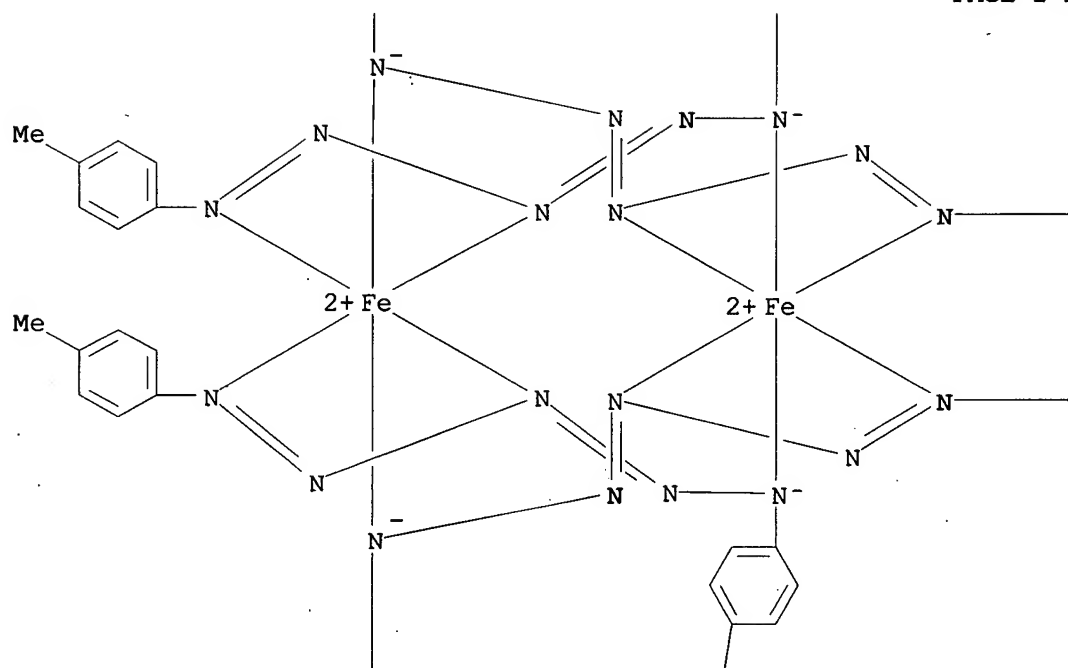
CMF C56 H56 Fe2 N20

CCI CCS

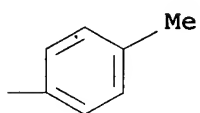
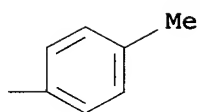
PAGE 1-A



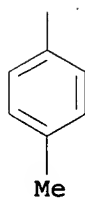
PAGE 2-A



PAGE 2-B



PAGE 3-A



CM 2

CRN 109-99-9

CMF C4 H8 O



L13 ANSWER 19 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1988:406676 HCAPLUS
 DN 109:6676
 TI 1,3-Diaryltriazenido complexes of bis(cyclopentadienyl)molybdenum.
 Preparation and electrochemical behavior
 AU Queiros, M. A. M.; Simao, J. E. J.; Dias, A. R.
 CS Cent. Quim. Pura Apl., Univ. Minho, Braga, 4719, Port.
 SO Journal of Organometallic Chemistry (1987), 329(1), 85-97
 CODEN: JORCAI; ISSN: 0022-328X
 DT Journal
 LA English
 OS CASREACT 109:6676
 AB The new complexes $[\text{Mo}(\eta\text{-C}_5\text{H}_5)_2(\text{p-R}_1\text{C}_6\text{H}_4\text{NNN-p-C}_6\text{H}_4\text{R}_2)] [\text{PF}_6]$ ($\text{R}_1 = \text{R}_2 = \text{H, F, Me, OMe}$; $\text{R}_1 = \text{H, R}_2 = \text{Me, OMe}$; $\text{R}_1 = \text{Me, R}_2 = \text{OMe}$) have been prepared. The electrochem. behavior of these complexes in acetonitrile has been studied by cyclic voltammetry and constant potential electrolysis at platinum electrodes. The complexes undergo two reversible one-electron redns. to species which are stable on the cyclic voltammetry time scale, but the uptake of electrons appears to be followed by loss of the triazenido ligand. The oxidative electrochem. of the complexes can be rationalized in terms of a disproportionation occurring after the first one-electron oxidation. Both reduction and oxidation potentials show good linear correlations with σ^+ Hammett parameters, providing evidence for the mesomeric influence of ligand R_1 and R_2 substituents on the metal orbitals involved in the redox processes.
 CC 29-11 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 72
 IT 114691-18-8P 114724-15-1P 114724-17-3P
 114724-19-5P 114724-21-9P 114724-23-1P
 114741-81-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and electrochem. anal. of)
 IT 114691-18-8P 114724-15-1P 114724-17-3P
 114724-19-5P 114724-21-9P 114724-23-1P
 114741-81-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and electrochem. anal. of)
 RN 114691-18-8 HCAPLUS
 CN Molybdenum(1+), bis(η^5 -2,4-cyclopentadien-1-yl) [1-(4-methoxyphenyl)-3-(4-methylphenyl)-1-triazenato-N1,N3]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

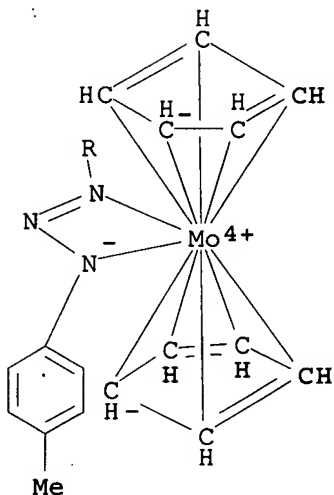
CM 1

CRN 114691-17-7

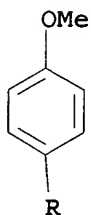
CMF C24 H24 Mo N3 O

CCI CCS

PAGE 1-A



PAGE 2-A

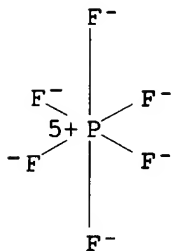


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 114724-15-1 HCAPLUS

CN Molybdenum(1+), [1,3-bis(4-methoxyphenyl)-1-triazenato-N1,N3]bis(eta5-2,4-cyclopentadien-1-yl)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

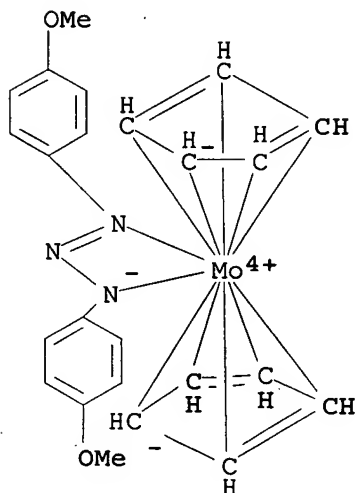
KATHLEEN FULLER EIC1700 571/272-2505

CM 1

CRN 114724-14-0

CMF C24 H24 Mo N3 O2

CCI CCS

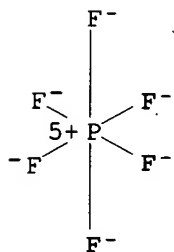


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 114724-17-3 HCAPLUS

CN Molybdenum(1+), bis(η5-2,4-cyclopentadien-1-yl) [1-(4-methoxyphenyl)-3-phenyl-1-triazenato-N1,N3]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

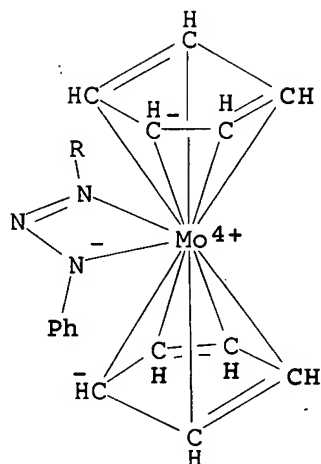
CM 1

CRN 114724-16-2

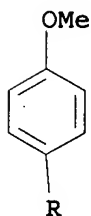
CMF C23 H22 Mo N3 O

CCI CCS

PAGE 1-A



PAGE 2-A

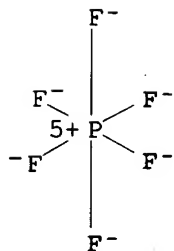


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

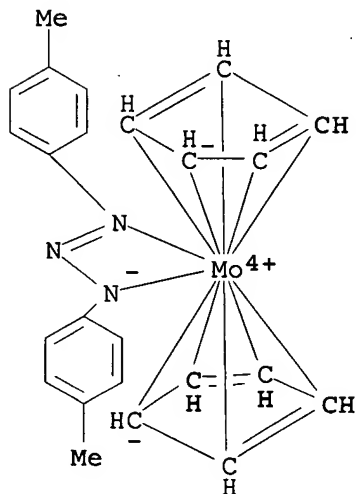


RN 114724-19-5 HCAPLUS

CN Molybdenum(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3]bis(η5-2,4-cyclopentadien-1-yl)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

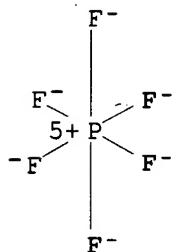
CM 1

CRN 114724-18-4
CMF C24 H24 Mo N3
CCI CCS



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS

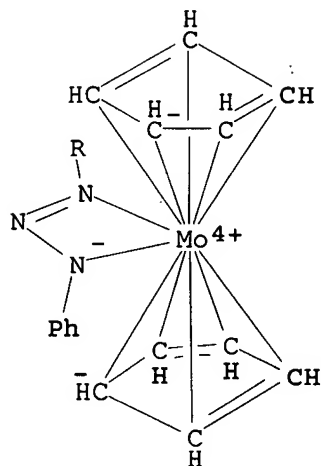


RN 114724-21-9 HCAPLUS
CN Molybdenum(1+), bis(η5-2,4-cyclopentadien-1-yl) [1-(4-methylphenyl)-3-phenyl-1-triazenato-N1,N3]-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

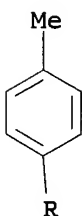
CM 1

CRN 114724-20-8
CMF C23 H22 Mo N3
CCI CCS

PAGE 1-A



PAGE 2-A

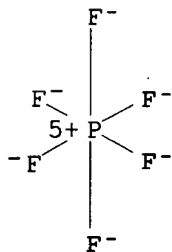


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS

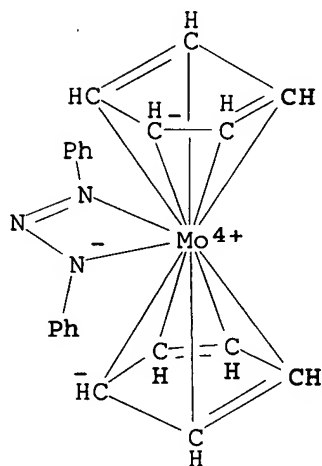


RN 114724-23-1 HCAPLUS

CN Molybdenum(1+), bis(η5-2,4-cyclopentadien-1-yl) (1,3-diphenyl-1-triazenato-N1,N3)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

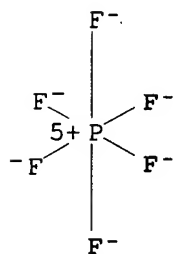
CM 1

CRN 114724-22-0
CMF C22 H20 Mo N3
CCI CCS



CM 2

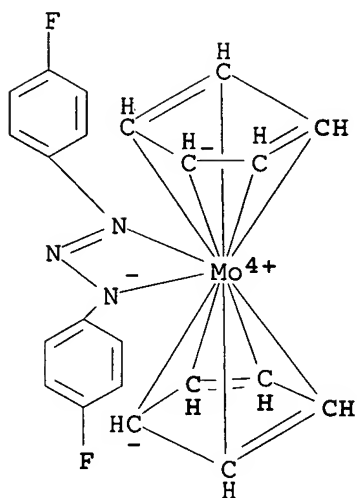
CRN 16919-18-9
CMF F6 P
CCI CCS



RN 114741-81-0 HCAPLUS
CN Molybdenum(1+), [1,3-bis(4-fluorophenyl)-1-triazenato-N1,N3]bis(η5-2,4-cyclopentadien-1-yl)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 114741-80-9
CMF C22 H18 F2 Mo N3
CCI CCS

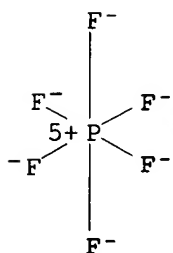


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L13 ANSWER 20 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1988:178899 HCAPLUS
 DN 108:178899
 TI Synthesis and properties of pentaazadienido complexes of divalent cobalt.
 The crystal structure of $[\text{Co}(\text{OCH}_3)(\text{tolNNNNNtol})]6.2\text{C}_9\text{H}_{12}$
 AU Schmid, Raimund; Beck, Johannes; Straehle, Joachim
 CS Inst. Anorg. Chem., Univ. Tuebingen, Tuebingen, D-7400, Fed. Rep. Ger.
 SO Zeitschrift fuer Naturforschung, B: Chemical Sciences (1987),
 42(7), 911-16
 CODEN: ZNBSEN; ISSN: 0932-0776
 DT Journal
 LA German
 AB Paramagnetic, explosive, red CoL_2 (I; HL = 1,5-di-p-tolyl-1,4-pentaazadiene) was prepared and reacted with alcs. to give $\text{Co}(\text{OR})\text{L}$ (R = Me, Et, Pr). $[\text{Co}(\text{OMe})\text{L}]6.2\text{C}_9\text{H}_{12}$ crystallizes from MeOH/mesitylene (C_9H_{12}) in the triclinic space group P.hivin.1 with a 1667.1(5), b 1784.2(5), c 2159.2(6) pm, α 93.05(3), β 96.10(2), γ 64.63(2)°, Z = 2, R = 0.081. In the hexameric complex 6 Co atoms and 6 OMe groups form a central 12 membered Co-O ring with a symmetry close to D3d. The

pentaazadienide ligands act as addnl. bridges between 2 Co atoms, coordinating 1 Co monodentate with N1 and the other Co bidentate with N3 and N5. This leads to alternating tetrahedral and octahedral coordination of the Co atoms. The average Co-O distances are 192.3 pm in the CoO2N2 tetrahedron and 198.0 pm in the CoO2N4 octahedron. The corresponding Co-N distances are 206.3 and 221.4 pm resp. In the planar N5 zigzag chain slightly elongated double bonds N1-N2 and N4-N5 of 128.2 pm and partial double bonds N2-N3 and N3-N4 of .apprx.134.6 pm are observed

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 113981-00-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure and magnetic moment of)

IT 113981-00-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure and magnetic moment of)

RN 113981-00-3 HCAPLUS

CN Cobalt, hexakis[μ-[1,5-bis(4-methylphenyl)-1,3-pentazadienato-N1:N3,N5]]hexa-μ-methoxyhexa-, cyclo, stereoisomer, compd. with 1,3,5-trimethylbenzene (1:2) (9CI) (CA INDEX NAME)

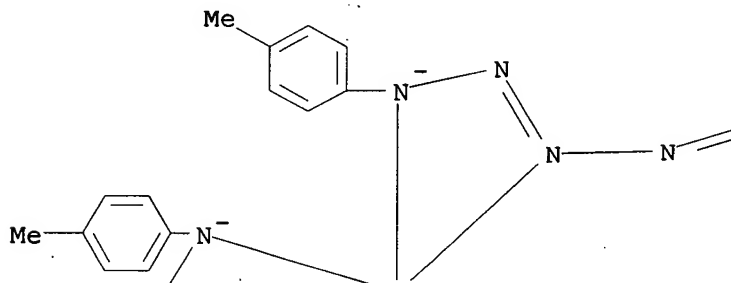
CM 1

CRN 113980-99-7

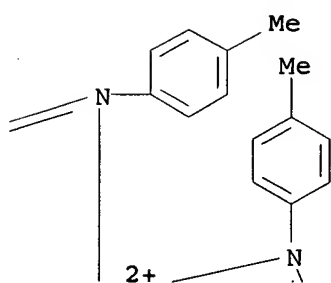
CMF C90 H102 Co6 N30 O6

CCI CCS

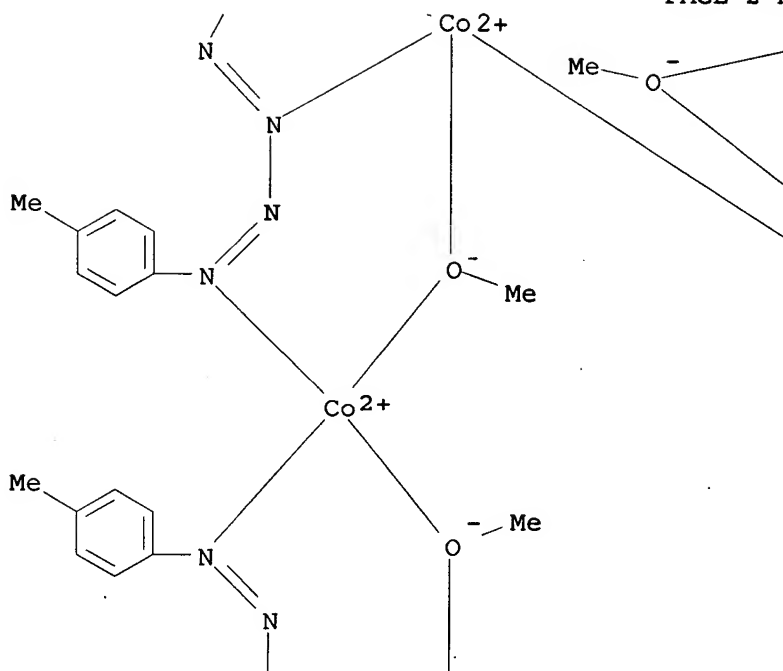
PAGE 1-A



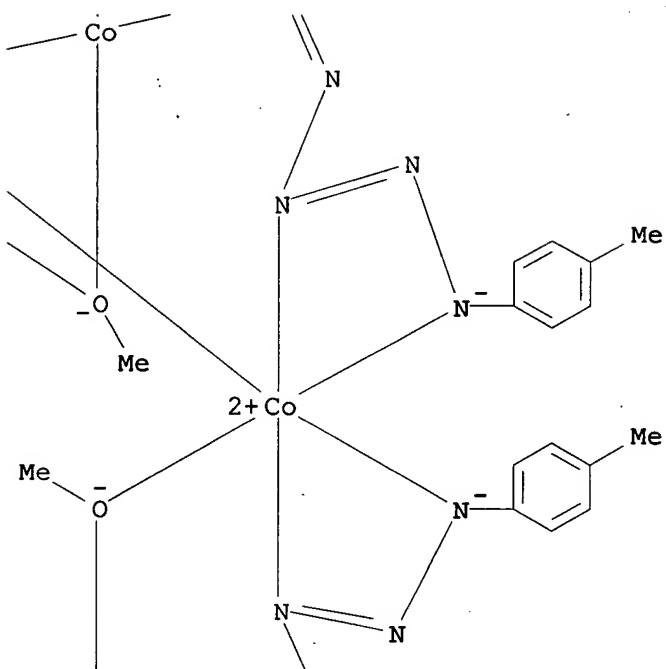
PAGE 1-B



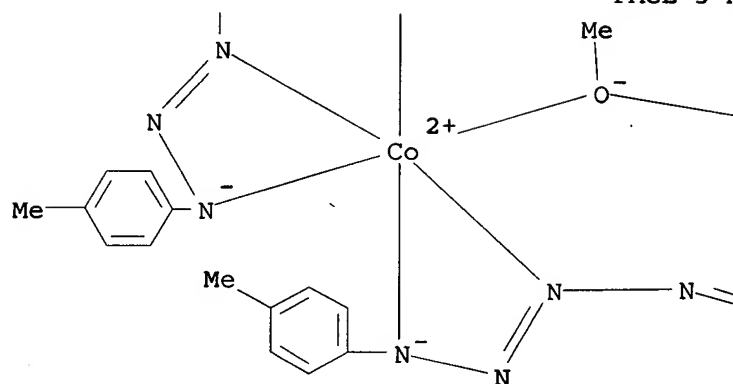
PAGE 2-A



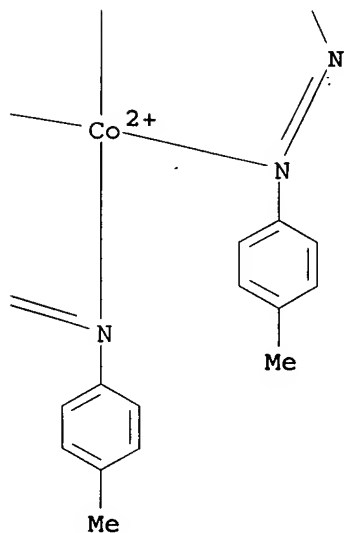
PAGE 2-B



PAGE 3-A



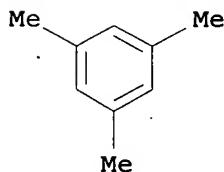
PAGE 3-B



CM 2

CRN 108-67-8

CMF C9 H12



L13 ANSWER 21 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1985:415923 HCAPLUS
 DN 103:15923
 TI Complexes of 1,5-di(p-tolyl)pentaaza-1,4-dienide - crystal structures of [Cu(tolylNNNNNtolyl)]₃ and [Ni(tolylNNNNNtolyl)₂]₂
 AU Beck, Johannes; Straehle, Joachim
 CS Inst. Anorg. Chem., Univ. Tuebingen, Tuebingen, D-7400/1, Fed. Rep. Ger.
 SO Angewandte Chemie (1985), 97(5), 419-20
 CODEN: ANCEAD; ISSN: 0044-8249
 DT Journal
 LA German
 AB [NiL₂]₂ (HL = (p-CH₃C₆H₄N:N)2NH) and [CuL]₃ were prepared from excess Ni(NH₃)₆²⁺ or Cu(NH₃)₄²⁺, resp., in aqueous NH₃ and HL in aqueous NH₃; for the Cu complex, CuL₂ was formed initially which was reduced on heating to CuL. [NiL₂]₂THF is monoclinic, space group P2₁/n, with a 1180.0(2), b 2898.7(6), c 1801.1(5) pm, β 91.71(1)°, Z = 4, R = 0.075. [CuL]₃THF.0.5Q (Q = hexane) is monoclinic, space group P2₁/c, with a 1477.3(1), b 1478.7(4), c 2284.5(2) pm, β 91.06(1)°, R = 0.064. The N1, N3, and N5 atoms of the ligand are involved in coordination in [NiL₂]₂ and each Ni atom has a distorted octahedral

environment. In [CuL]₃ each ligand is tridentate bridging through the N(1), N(3), and N(5) atoms and the 3 Cu atoms are in a linear chain with 2 Cu-Cu single bonds.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 96129-15-6P 96129-17-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

IT 96129-15-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

RN 96129-15-6 HCAPLUS

CN Nickel, tetrakis[μ-[1,5-bis(4-methylphenyl)-1,3-pentazadienato-N1,N3:N5]]di-, compd. with tetrahydrofuran (1:1) (9CI) (CA INDEX NAME)

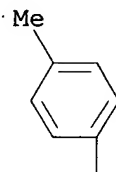
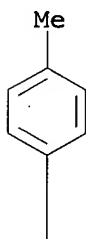
CM 1

CRN 96129-14-5

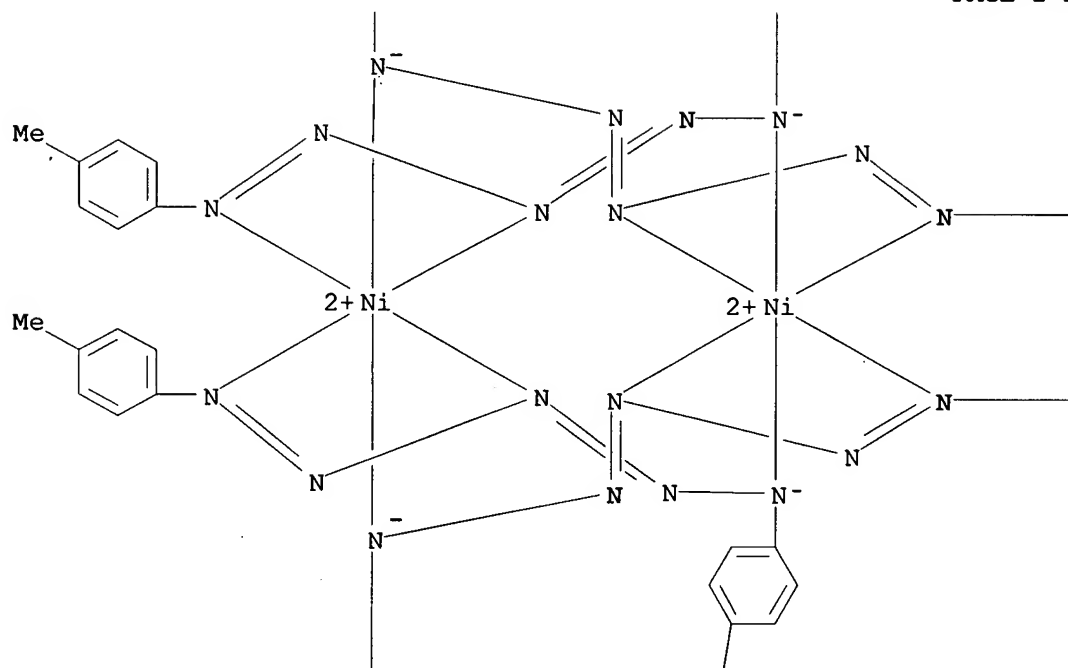
CMF C56 H56 N20 Ni2

CCI CCS

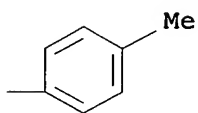
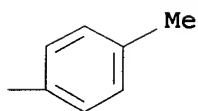
PAGE 1-A



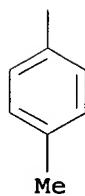
PAGE 2-A



PAGE 2-B



PAGE 3-A



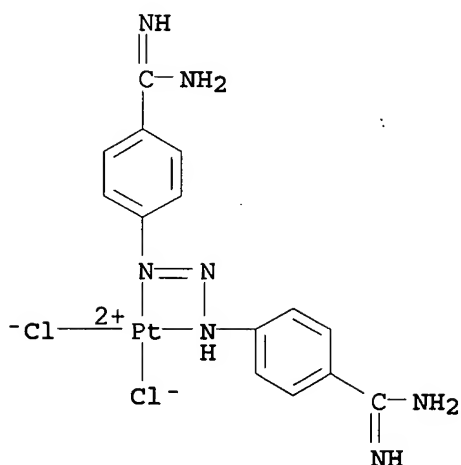
CM 2

CRN 109-99-9

CMF C4 H8 O



L13 ANSWER 22 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1984:416814 HCAPLUS
 DN 101:16814
 TI Trypanocidal and antitumor activity of platinum-metal and
 platinum-metal-drug dual-function complexes
 AU Farrell, N. P.; Williamson, J.; McLaren, Diane J. M.
 CS Dep. Chem., Fed. Univ. Minas Gerais, Belo Horizonte, 30 000, Brazil
 SO Biochemical Pharmacology (1984), 33(7), 961-71
 CODEN: BCPCA6; ISSN: 0006-2952
 DT Journal
 LA English
 AB A number of antitumor Pt-metal complexes related to cisplatin showed
 trypanocidal activity against Trypanosoma rhodesiense in vitro but not in
 vivo. New Pt and Rh metal complexes of diamidine and plenanthridinium
 trypanocides showed higher therapeutic indexes than the parent drugs, due
 to increased activity in the former drug type and decreased toxicity in
 the latter. Antitumor activity was noted with these drug complexes. At
 the ultrastructural level, complex-treated trypanosomes showed a number of
 nuclear effects and other lesions specifically attributable to Pt-metal
 action. Some of the lesions were similar to those induced by cisplatin in
 tumor cells.
 CC 1-3 (Pharmacology)
 Section cross-reference(s): 10
 IT 7440-06-4D, complexes 14282-91-8 15663-27-1 18532-87-1 25125-46-6
 29998-99-0 52691-24-4 90698-12-7 90698-13-8 90698-14-9
 90738-17-3 90738-18-4 90738-20-8 90738-21-9
 90738-22-0 90738-23-1 90738-24-2 90738-25-3 90738-26-4
 90738-27-5 90738-28-6 90751-75-0
 RL: BIOL (Biological study)
 (antitumor and trypanocidal activity of, structure in relation to)
 IT 90738-18-4 90738-20-8
 RL: BIOL (Biological study)
 (antitumor and trypanocidal activity of, structure in relation to)
 RN 90738-18-4 HCAPLUS
 CN Platinum, dichloro[4,4'-(1-triazene-1,3-diyl)bis[benzenecarboximidamide]]-
 , dihydrochloride, (SP-4-3)- (9CI) (CA INDEX NAME)

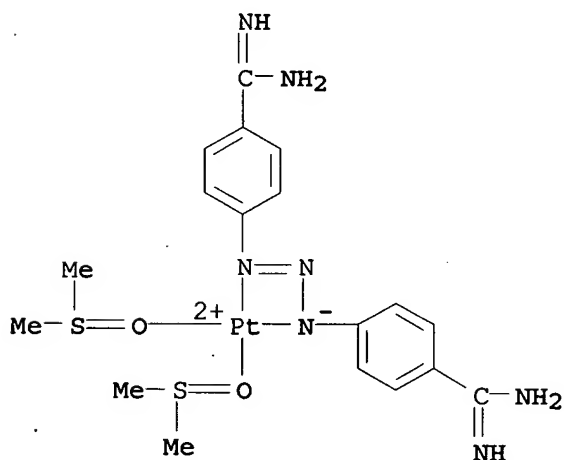


● 2 HCl

RN 90738-20-8 HCAPLUS
 CN Platinum(1+), bis[sulfinylbis[methane]-O][[4,4'-(1-triazene-1,3-diyl)bis[benzenecarboximidamido]](1-)]-, (SP-4-2)-, nitrate (9CI) (CA INDEX NAME)

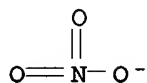
CM 1

CRN 90738-19-5
 CMF C18 H26 N7 O2 Pt S2
 CCI CCS

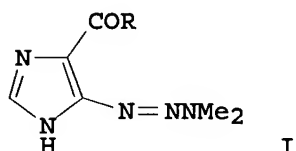


CM 2

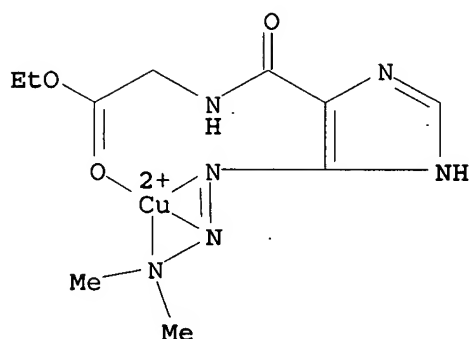
CRN 14797-55-8
 CMF N O3



L13 ANSWER 23 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1984:202348 HCAPLUS
 DN 100:202348
 TI Coordination compounds of copper(II) with some triazenoimidazole derivatives
 AU Zalaru, Florica; Ionescu, D.; Meghea, Aurelia; Cornea, Felicia; Gheorghiu, Constanta
 CS Fac. Chem. Technol., Polytech. Inst., Bucharest, Rom.
 SO Revue Roumaine de Chimie (1983), 28(8), 811-17
 CODEN: RRCHAX; ISSN: 0035-3930
 DT Journal
 LA English
 GI



AB [CuL₄]Cl₂ (L = I, R = OMe), CuLCl(EtOH) (R = NH₂), and [CuL]Cl₂ (R = NHCH₂CO₂Et) were prepared and characterized by elemental anal., conductivity measurements, IR, UV-visible and ESR spectra. Several conclusions concerning mol. structure and the complexing capacity of the ligands were drawn on the basis of these studies. L is mono-, bi-, and pentadentate in [CuL₄]Cl₂, CuLCl(EtOH), and [CuL]Cl₂, resp.
 CC 78-7 (Inorganic Chemicals and Reactions)
 IT 89248-20-4P 89248-21-5P 89589-63-9P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 IT 89589-63-9P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 89589-63-9 HCAPLUS
 CN Copper(2+), [ethyl N-[[5-(3,3-dimethyl-1-triazenyl)-1H-imidazol-4-yl]carbonyl]glycinate]-, dichloride (9CI) (CA INDEX NAME)



● 2 Cl⁻

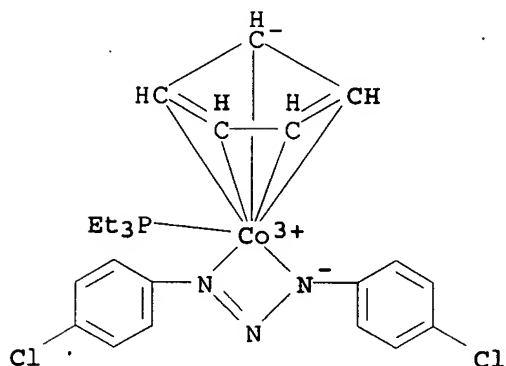
L13 ANSWER 24 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1980:433891 HCAPLUS
 DN 93:33891
 TI Electrochemical redox behavior of cobalt and iron triazenido complexes,
 [(η^5 -C₅H₅)(L)(ArN₃Ar)M]^z
 AU Van der Linden, J. G. M.; Dix, A. H.; Pfeiffer, E.
 CS Dep. Inorg. Chem., Univ. Nijmegen, Nijmegen, 6525 ED, Neth.
 SO Inorganica Chimica Acta (1980), 39(2), 271-4
 CODEN: ICHAA3; ISSN: 0020-1693
 DT Journal
 LA English
 AB The Co(III) complexes, [(η^5 -C₅H₅)(L)(ArN₃Ar)Co]⁺, with L = PEt₃, PPh₃,
 P(OMe)₃ and P(OPh)₃ and ArN₃Ar = diaryltriazenido anion can be reversibly
 reduced in a 1-electron step to the neutral cobalt(II) species at about
 -0.2 to +0.1 V vs. a Ag-AgCl electrode in acetone solns. The Fe(II)
 complexes, (η^5 -C₅H₅)(L)(ArN₃Ar)Fe, with L = PPh₃, P(OMe)₃, P(OPh)₃ and
 CO could be oxidized at 0.25-0.65 V vs. a Ag-AgI electrode in
 dichloromethane solns. The new complex, [(η^5 -
 C₅H₅)(CO)(NO)(ArN₃Ar)Fe]PF₆ was obtained by reaction of
 (η^5 -C₅H₅)(CO)(NO)(ArN₃Ar)Fe with NOPF₆.
 CC 72-11 (Electrochemistry)
 Section cross-reference(s): 29
 IT 72774-47-1 72774-49-3 72774-51-7
 72774-54-0 72774-56-2 72774-58-4
 72774-60-8 72781-86-3
 RL: PRP (Properties)
 (electrochem. redox reaction of system containing)
 IT 74009-00-0P
 RL: PREP (Preparation)
 (preparation of, electrochem. redox reactions in relation to)
 IT 72774-47-1 72774-49-3 72774-51-7
 72774-54-0 72774-56-2 72774-58-4
 72774-60-8 72781-86-3
 RL: PRP (Properties)
 (electrochem. redox reaction of system containing)
 RN 72774-47-1 HCAPLUS
 CN Cobalt(1+), [1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3](η^5 -2,4-
 cyclopentadien-1-yl)(triethylphosphine)-, hexafluorophosphate(1-) (9CI)
 (CA INDEX NAME)

CM 1

CRN 72774-46-0

CMF C23 H28 Cl2 Co N3 P

CCI CCS

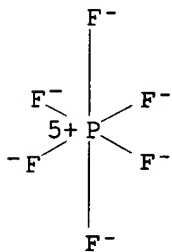


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-49-3 HCAPLUS

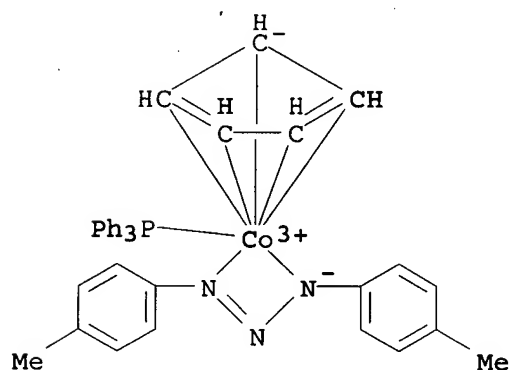
CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η5-2,4-cyclopentadien-1-yl) (triphenylphosphine)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 72774-48-2

CMF C37 H34 Co N3 P

CCI CCS

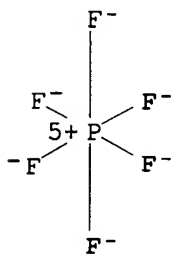


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-51-7 HCAPLUS

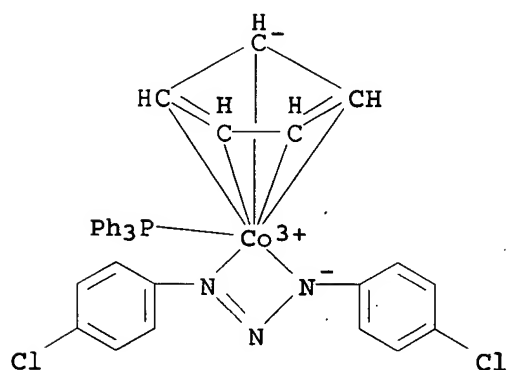
CN Cobalt(1+), [1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3] (η5-2,4-cyclopentadien-1-yl) (triphenylphosphine)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 72774-50-6

CMF C35 H28 Cl2 Co N3 P

CCI CCS

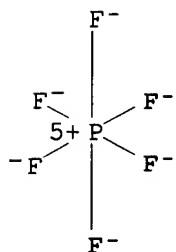


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-54-0 HCAPLUS

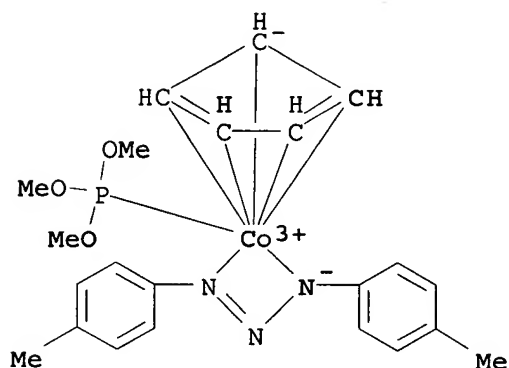
CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl)(trimethyl phosphite-P)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 72774-53-9

CMF C22 H28 Co N3 O3 P

CCI CCS

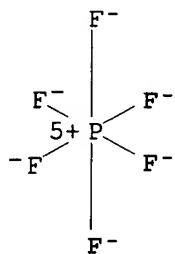


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-56-2 HCAPLUS

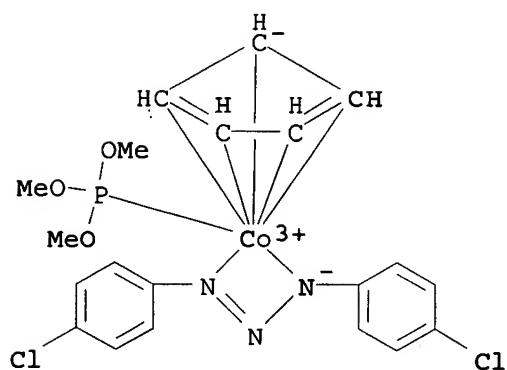
CN Cobalt(1+), [1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3] (η5-2,4-cyclopentadien-1-yl) (trimethyl phosphite-P)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 72774-55-1

CMF C20 H22 Cl2 Co N3 O3 P

CCI CCS

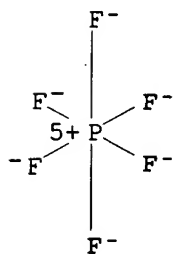


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-58-4 HCAPLUS

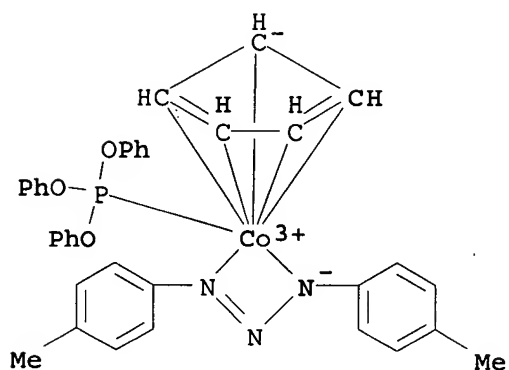
CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl)(triphenyl phosphite-P)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 72774-57-3

CMF C37 H34 Co N3 O3 P

CCI CCS

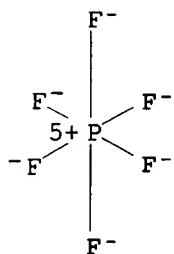


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-60-8 HCAPLUS

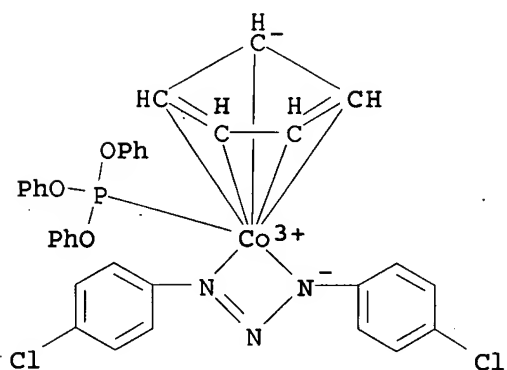
CN Cobalt(1+), [1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3] (η5-2,4-cyclopentadien-1-yl)(triphenyl phosphite-P)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 72774-59-5

CMF C35 H28 Cl2 Co N3 O3 P

CCI CCS

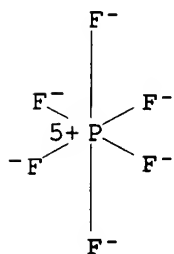


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72781-86-3 HCAPLUS

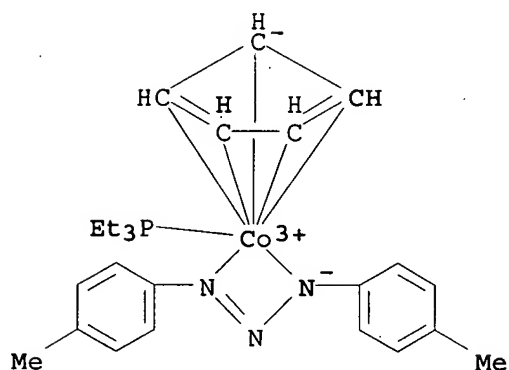
CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl) (triethylphosphine)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 72781-85-2

CMF C25 H34 Co N3 P

CCI CCS

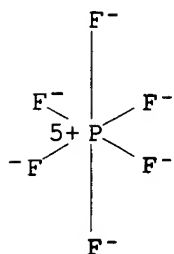


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



IT 74009-00-0P

RL: PREP (Preparation)

(preparation of, electrochem. redox reactions in relation to)

RN 74009-00-0 HCAPLUS

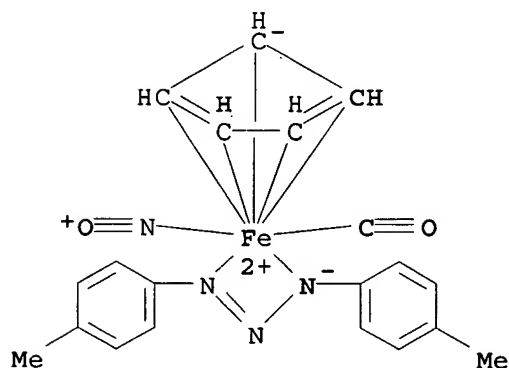
CN Iron(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3]carbonyl(η5-2,4-cyclopentadien-1-yl)nitrosyl-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 74008-99-4

CMF C20 H19 Fe N4 O2

CCI CCS

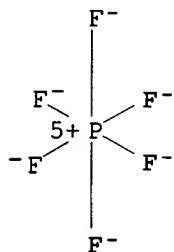


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



- L13 ANSWER 25 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1980:111151 HCAPLUS
 DN 92:111151
 TI Isostructural triazenido complexes of first row transition metals. Part 2. Synthesis and properties of $[(\eta^5\text{-C}_5\text{H}_5)\text{L}(\text{RN}_3\text{R})\text{CoIII}]\text{PF}_6$, $\text{L} = \text{PEt}_3$, PPh_3 , $\text{P}(\text{OMe})_3$ and $\text{P}(\text{OPh})_3$
 AU Pfeiffer, Ernst; Kokkes, Maarten W.; Vrieze, Kees
 CS J. H. Van't Hoff Inst., Univ. Amsterdam, Amsterdam, 1018 WV, Neth.
 SO Transition Metal Chemistry (Dordrecht, Netherlands) (1979), 4(6), 389-93
 CODEN: TMCHDN; ISSN: 0340-4285
 DT Journal
 LA English
 AB The synthesis and properties of $[(\eta^5\text{-C}_5\text{H}_5)\text{L}(\text{RN}_3\text{R})\text{CoIII}]^+ \text{PF}_6^-$ [$\text{L} = \text{PEt}_3$, PPh_3 , $\text{P}(\text{OMe})_3$, $\text{P}(\text{OPh})_3$] are reported. A 6-coordinate configuration containing a chelating triazenido ligand is proposed which is isostructural with the known complexes of Fe and Ni. The spectroscopic properties of the isoelectronic Co and Fe complexes, $(\eta^5\text{-C}_5\text{H}_5)\text{L}(\text{RN}_3\text{R})\text{M}$, are compared in relation to the charge on the central metal atom. The complex with $\text{L} = \text{CO}$ could not be prepared, but the carbonyl-inserted product $(\eta^5\text{-C}_5\text{H}_5)\text{L}[\text{RNNR}\text{CO}]\text{Co}$ was isolated. In 1 of the reactions, the novel ring-bound triphenylphosphine complex, $[(\eta^5\text{-C}_5\text{H}_5)(\eta^5\text{-C}_5\text{H}_4\text{PPh}_3)\text{CoIII}]^+ 2\text{PF}_6^-$, was isolated as a side product.
 CC 29-13 (Organometallic and Organometalloidal Compounds)

IT 72774-47-1P 72774-49-3P 72774-51-7P
72774-52-8P 72774-54-0P 72774-56-2P
72774-58-4P 72774-60-8P 72781-86-3P
72784-15-7P 72911-41-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectral characteristics of)

IT 72774-47-1P 72774-49-3P 72774-51-7P
72774-52-8P 72774-54-0P 72774-56-2P
72774-58-4P 72774-60-8P 72781-86-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectral characteristics of)

RN 72774-47-1 HCAPLUS

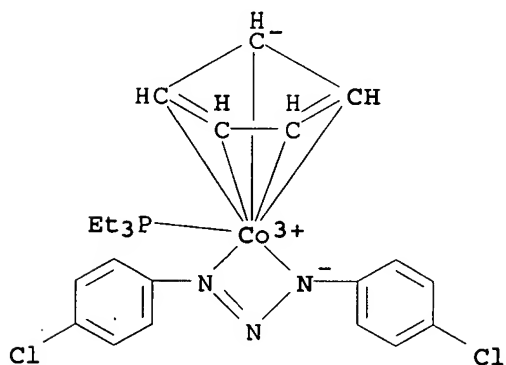
CN Cobalt(1+), [1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl) (triethylphosphine)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 72774-46-0

CMF C23 H28 Cl2 Co N3 P

CCI CCS

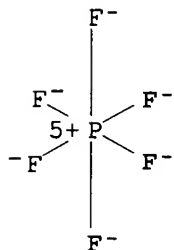


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-49-3 HCAPLUS

CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl) (triphenylphosphine)-, hexafluorophosphate(1-) (9CI)

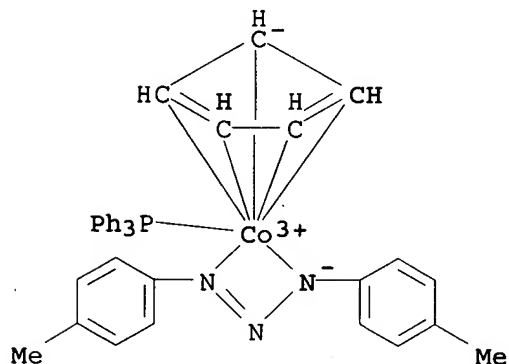
(CA INDEX NAME)

CM 1

CRN 72774-48-2

CMF C37 H34 Co N3 P

CCI CCS

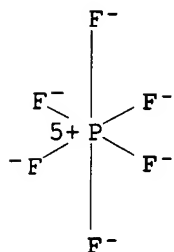


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-51-7 HCAPLUS

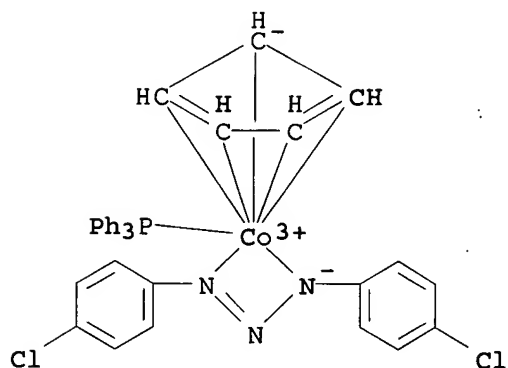
CN Cobalt(1+), [1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3] (η5-2,4-cyclopentadien-1-yl) (triphenylphosphine)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 72774-50-6

CMF C35 H28 Cl2 Co N3 P

CCI CCS

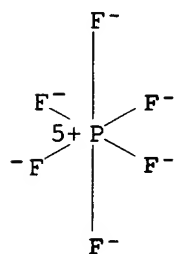


CM 2

CRN 16919-18-9

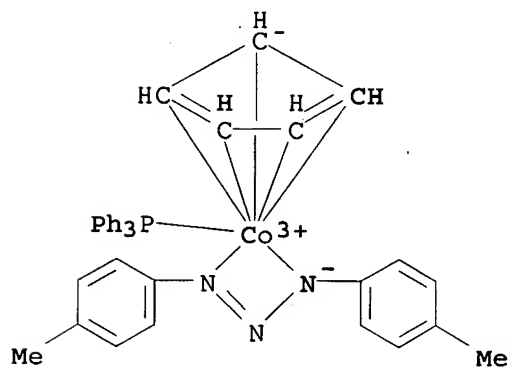
CMF F6 P

CCI CCS



RN 72774-52-8 HCAPLUS

CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η5-2,4-cyclopentadien-1-yl)(triphenylphosphine)-, iodide (9CI) (CA INDEX NAME)



● I-

RN 72774-54-0 HCAPLUS

KATHLEEN FULLER EIC1700 571/272-2505

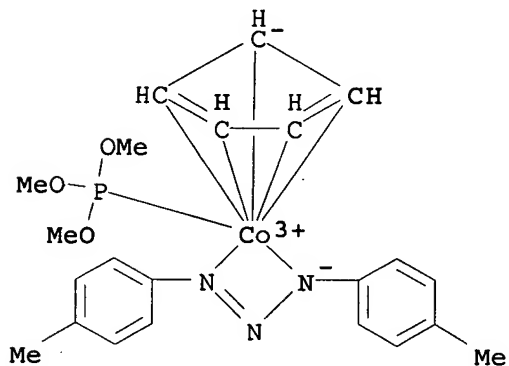
CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl)(trimethyl phosphite-P)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 72774-53-9

CMF C22 H28 Co N3 O3 P

CCI CCS

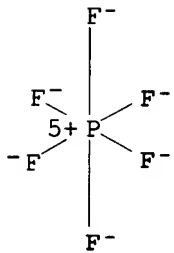


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-56-2 HCAPLUS

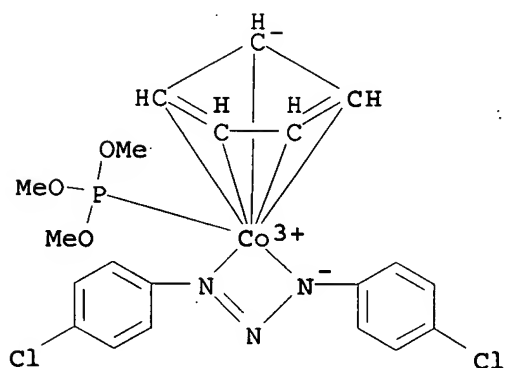
CN Cobalt(1+), [1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl)(trimethyl phosphite-P)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 72774-55-1

CMF C20 H22 Cl2 Co N3 O3 P

CCI CCS

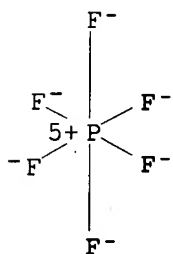


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-58-4 HCAPLUS

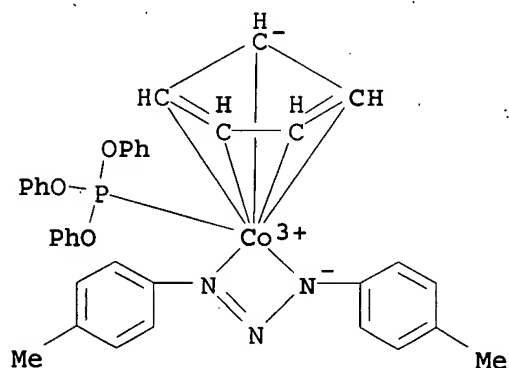
CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl) (triphenyl phosphite-P)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 72774-57-3

CMF C37 H34 Co N3 O3 P

CCI CCS

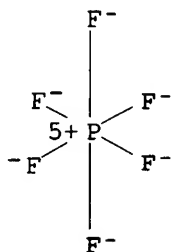


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72774-60-8 HCAPLUS

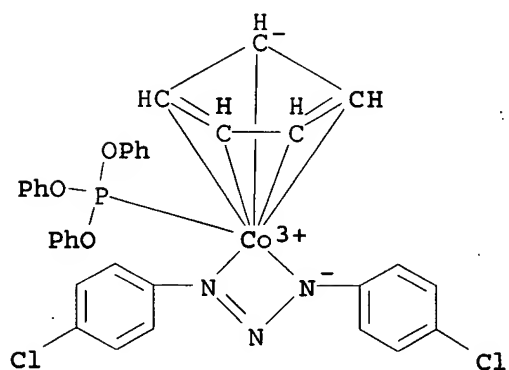
CN Cobalt(1+), [1,3-bis(4-chlorophenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl) (triphenyl phosphite-P)-, hexafluorophosphate(1-)
(9CI) (CA INDEX NAME)

CM 1

CRN 72774-59-5

CMF C35 H28 Cl2 Co N3 O3 P

CCI CCS

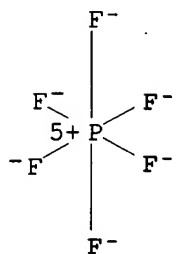


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



RN 72781-86-3 HCAPLUS

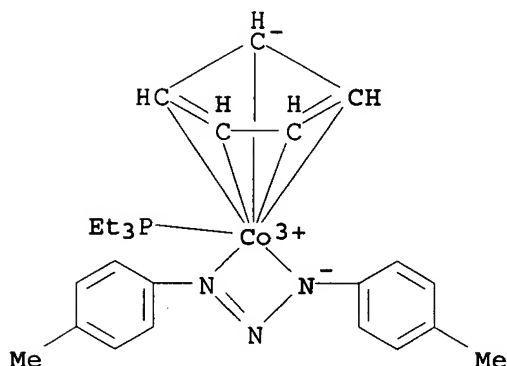
CN Cobalt(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3] (η^5 -2,4-cyclopentadien-1-yl) (triethylphosphine)-, hexafluorophosphate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 72781-85-2

CMF C25 H34 Co N3 P

CCI CCS

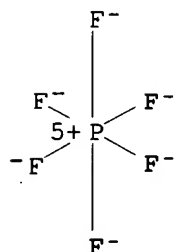


CM 2

CRN 16919-18-9

CMF F6 P

CCI CCS



L13 ANSWER 26 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1979:567611 HCAPLUS
 DN 91:167611
 TI Reactivity of $M(\text{ArN}=\text{N}=\text{NAr})(\text{CO})(\text{PPh}_3)_2$ with aryldiazonium salts (M = rhodium(I), iridium(I); Ar = $p\text{-CH}_3\text{C}_6\text{H}_4$, $p\text{-FC}_6\text{H}_4$)
 AU Toniolo, Luigi; Cavinato, Gianni
 CS Ist. Chim. Gen. Inorg. Chim. Inorg. Ind., Univ. Padua, Padua, Italy
 SO Inorganica Chimica Acta (1979), 35(1), L301-L302
 CODEN: ICHAA3; ISSN: 0020-1693
 DT Journal
 LA English
 AB The title complexes readily react with $[\text{ArN}_2]\text{BF}_4$ (Ar = $p\text{-MeC}_6\text{H}_4$, $p\text{-FC}_6\text{H}_4$) in $\text{C}_6\text{H}_6\text{-Me}_2\text{CO}$ or EtOH to yield $[\text{Ir}(\text{ArNN}:\text{NAr})(\text{CO})(\text{PPh}_3)_2]\text{BF}_4$ and $[\text{Rh}(\text{CONArN}:\text{NAr})(\text{N}_2\text{Ar})(\text{PPh}_3)_2]\text{BF}_4$. The latter are formed by an insertion reaction. IR and NMR spectral data are discussed.
 CC 78-7 (Inorganic Chemicals and Reactions)
 IT 71363-08-1P 71374-79-3P 71413-36-0P 71765-24-7P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 IT 71363-08-1P 71413-36-0P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 71363-08-1 HCAPLUS
 CN Iridium(1+), [1,3-bis(4-methylphenyl)-1-triazenato-N1,N3]carbonyl[(4-

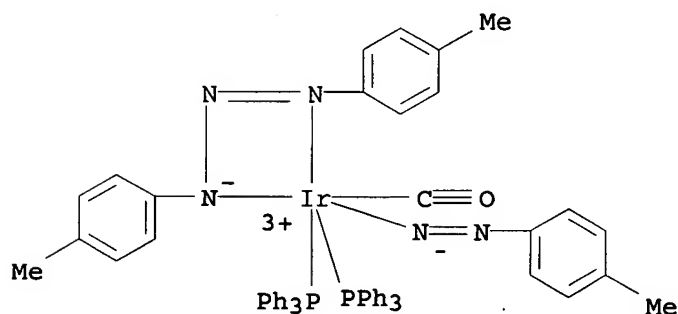
methylphenyl)azo]bis(triphenylphosphine)-, tetrafluoroborate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 71363-07-0

CMF C58 H51 Ir N5 O P2

CCI CCS

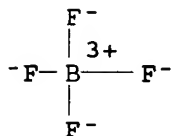


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



RN 71413-36-0 HCAPLUS

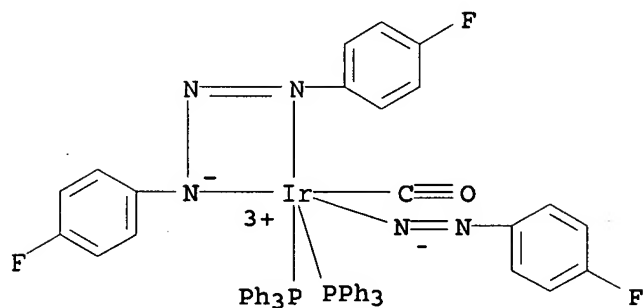
CN Iridium(1+), [1,3-bis(4-fluorophenyl)-1,3,4,5-tetrazolato-N1,N3]carbonyl[[4-fluorophenyl)azo]bis(triphenylphosphine)-, tetrafluoroborate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 71413-35-9

CMF C55 H42 F3 Ir N5 O P2

CCI CCS

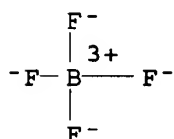


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



- L13 ANSWER 27 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1979:557868 HCAPLUS
 DN 91:157868
 TI Pentamethylcyclopentadienylrhodium and -iridium complexes. Part 21. Neutral and cationic β -diketonato-, η^3 -allylic, and NN'-triazenido- complexes: the x-ray crystal structure of the binuclear complex bis(acetylacetonato)bis(pentamethylcyclopentadienyl)dirhodium(2+) tetrafluoroborate
 AU Rigby, William; Lee, Hing-Biu; Bailey, Pamela M.; McCleverty, Jon A.; Maitlis, Peter M.
 CS Dep. Chem., Univ. Sheffield, Sheffield, UK
 SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1972-1999) (1979), (2), 387-94
 CODEN: JCDTBI; ISSN: 0300-9246
 DT Journal
 LA English
 AB RM(R1COCHCOR2)X (R = η^5 -pentamethylcyclopentadienyl; M = Rh, X = Cl, R1 = R2 = Me, CF3, R1 = Me, R2 = Pr, OEt, CF3; M = Rh, R1 = R2 = Me, X = Br, iodo, N3, OAc; M = Ir, X = Cl, R1 = R2 = Me, CF3) were prepared from R2M2Cl4 and R1COCHNaCOR2. Ir forms a stable complex RIrL2 (L = MeCOCHCOME) in which the L ligands are O,O'- and C-bonded, resp. RRhLCl undergoes substitution with N-bromo- or N-iodosuccinimide to give RRh(MeCOCX1COME)Cl (X1 = Br, iodo, resp.). Reaction of RRh(MeCOCHCOR2)Cl (R2 = Me, Pr, OEt) with AgX2 (X2 = PF6, BF4) gives [R2Rh2(MeCOCHCOR2)2][X2]2. The structure of [R2Rh2L2][BF4]2 was determined by x-ray crystallog. and refined to R 0.034 for 2384 reflections. The complex contains 2 bridging L ligands, O,O'-bonded to 1 Rh and C-bonded to the other. The R ring is distorted towards an ene-enyl structure, the shortest C-C (ene) bond being trans to the Rh-C(L) σ -bond. R2Rh2Cl4 reacts with R3NHN:NR3 (R3 = Ph, p-tolyl, p-ClC6H4) and base or Ag[N3(R3)2] to give the

N,N"-bonded triazenido complexes $\text{RRh}[\text{N}_3(\text{R}_3)_2]\text{Cl}$; the N,N'-bonded acetamidinato complex $\text{RRh}(\text{PhNCMeNPh})\text{Cl}$ was prepared similarly. These complexes give $[\text{RRhL}_1(\text{PhNQNPh})] [\text{PF}_6]$ [$\text{Q} = \text{N}$, $\text{L}_1 = \text{MeCN}$, $\text{P}(\text{OMe})_3$; $\text{Q} = \text{CMe}$, $\text{L}_1 = \text{MeCN}$, PPh_3] on reaction with L_1 and AgPF_6 . $\text{R}_2\text{Rh}_2(\text{N}_3)_4$ forms $\text{R}_2\text{Rh}(\text{R}_3\text{NHN}:\text{NR}_3)(\text{N}_3)_4$ with $\text{R}_3\text{NHN}:\text{NR}_3$ ($\text{R}_3 = \text{Ph}$, p-tolyl). The methylallyl complex $\text{RRh}(\eta^3\text{-1-MeC}_3\text{H}_4)\text{Cl}$ forms $[\text{RRh}(\eta^3\text{-1-MeC}_3\text{H}_4)\text{L}_2] [\text{PF}_6]$ [$\text{L}_2 = \text{MeCN}$, $\text{P}(\text{OMe})_3$, PPh_3 , NH_2Et] on reaction with L_2 and AgPF_6 .

CC 29-13 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 75

IT 71395-47-6P 71395-50-1P 71395-52-3P 71395-54-5P 71395-56-7P
 71395-58-9P 71395-63-6P 71395-65-8P 71395-67-0P 71395-69-2P
 71395-70-5P 71395-72-7P 71395-74-9P 71395-76-1P
 71395-77-2P 71395-78-3P 71395-79-4P 71395-80-7P 71395-85-2P
 71395-87-4P 71395-89-6P 71395-93-2P 71395-94-3P 71395-95-4P
 71395-96-5P 71395-97-6P 71395-98-7P 71395-99-8P 71414-10-3P
 71414-11-4P 71414-13-6P 71414-15-8P 71633-29-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

IT 71395-72-7P 71395-74-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 71395-72-7 HCAPLUS

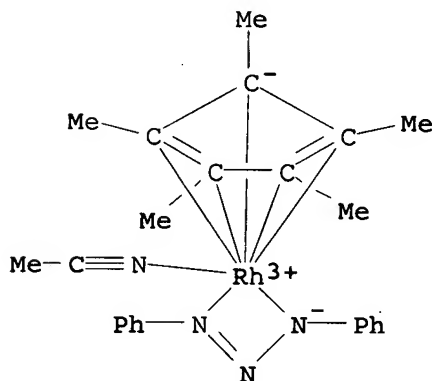
CN Rhodium(1+), (acetonitrile) (1,3-diphenyl-1-triazenato-N1:N3) [(1,2,3,4,5- η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl]di-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 71395-71-6

CMF C24 H28 N4 Rh

CCI CCS

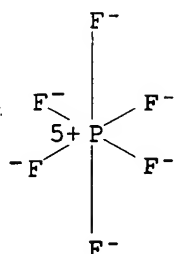


CM 2

CRN 16919-18-9

CMF F6 P

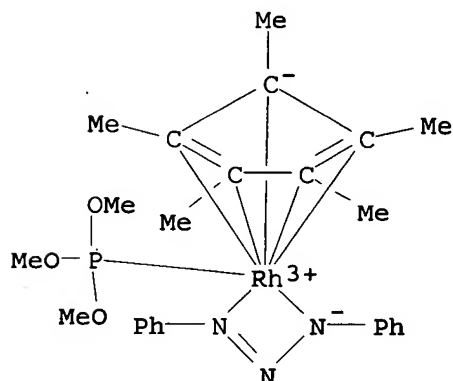
CCI CCS



RN 71395-74-9 HCAPLUS
 CN Rhodium(1+), (1,3-diphenyl-1-triazenato-N1:N3) [(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl] (trimethyl phosphite-P)-, hexafluorophosphate(1-) (9CI) (CA INDEX NAME)

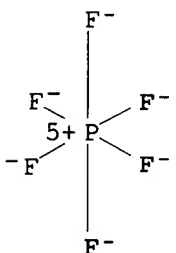
CM 1

CRN 71395-73-8
 CMF C25 H34 N3 O3 P Rh
 CCI CCS



CM 2

CRN 16919-18-9
 CMF F6 P
 CCI CCS



L13 ANSWER 28 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1979:533437 HCAPLUS

DN 91:133437

TI Study of complexation and determination of mercury(II) with
1-(p-nitrophenyl)-3-(p-sodiosulfophenyl)triazene

AU Danet, Andrei Florin; Tiron, Mihaela

CS Inst. Cent. Chim., Bucharest, Rom.

SO Revistade Chimie (Bucharest, Romania) (1979), 30(4), 376-81

CODEN: RCBUAU; ISSN: 0034-7752

DT Journal

LA Romanian

AB Hg(II) reacts with 1-(p-nitrophenyl)-3-(p-sodiosulfophenyl)triazine to
form a 1:2 complex soluble in aqueous medium. The average stability constant
(calculated

by means of 4 methods) was 1022.93. The complex was stable and allowed
the determination of 0.4-8 µg Hg(II) with good sensitivity and selectivity.
The molar absorptivity was 2.87×10^4 ; the absorbance maximum of the
complex was at 420 nm. Ag(I), Ba(II), Mn(II), Fe(II), SCN-, CN-, Cl-,
Br-, I-, S²⁻, and Sn²⁺ interfered.

CC 79-6 (Inorganic Analytical Chemistry)

Section cross-reference(s): 68

IT 71377-49-6

RL: PRP (Properties)

(stability constant and spectrum of)

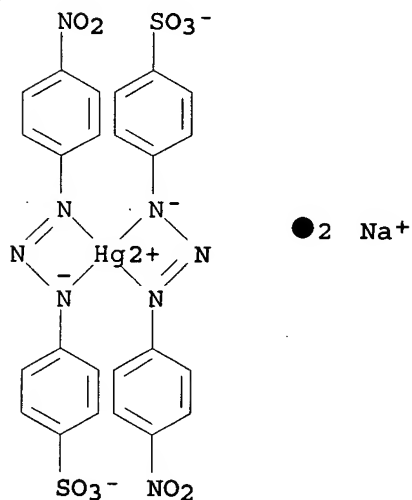
IT 71377-49-6

RL: PRP (Properties)

(stability constant and spectrum of)

RN 71377-49-6 HCAPLUS

CN Mercurate(2-), bis[4-[3-(4-nitrophenyl)-2-triazenyl]benzenesulfonato(2-)]-
, disodium, (T-4)- (9CI) (CA INDEX NAME)



L13 ANSWER 29 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1979:179515 HCAPLUS

DN 90:179515

TI Study and analytical application of complexes of zinc and cadmium with
1,10-phenanthroline and Cadion IREA

AU Shestidesyatnaya, N. L.; Milyaeva, N. M.; Voronich, O. G.

CS Uzhgorod State Univ., Uzhgorod, USSR

SO Zhurnal Analiticheskoi Khimii (1979), 34(1), 94-7

CODEN: ZAKHA8; ISSN: 0044-4502

DT Journal

LA Russian

AB Zn and Cd react with Cadion IREA (I) and 1,10-phenanthroline (II) to form ternary complexes with molar ratios Zn/I/II = 1:2:2 and Cd/I/II = 1:1:1. The Zn complexes are formed in a wide pH range (3-9), those with Cd at pH 7.6-8.2. The complexes are extracted by 10:1 CHCl₃-BuOH.

Extraction-photometric

methods were developed for the determination of Zn and Cd in alloys and semiconductor materials. Beer's law is obeyed for 13-32 µg Zn and 11-50 µg Cd in 5 mL extract. The molar absorptivity of the Zn complex is 1.1×10^4 at 424 nm and that of the Cd complex is 3.3×10^4 at 520 nm. Sn(II) and Pb 8-fold and Bi and Fe(III) 2-fold excess do not interfere in Cd determination. Al 10-fold excess and Fe(II), Ni, and Cd 3-fold excess do not interfere in Zn determination. NO₃⁻, SO₄²⁻, Cl⁻, Br⁻, tartaric,

and

citric acid do not interfere in both cases.

CC 79-6 (Inorganic Analytical Chemistry)

IT 7440-66-6D, Cadion IREA and phenanthroline complex 70140-53-3

RL: PRP (Properties)

(spectrum of)

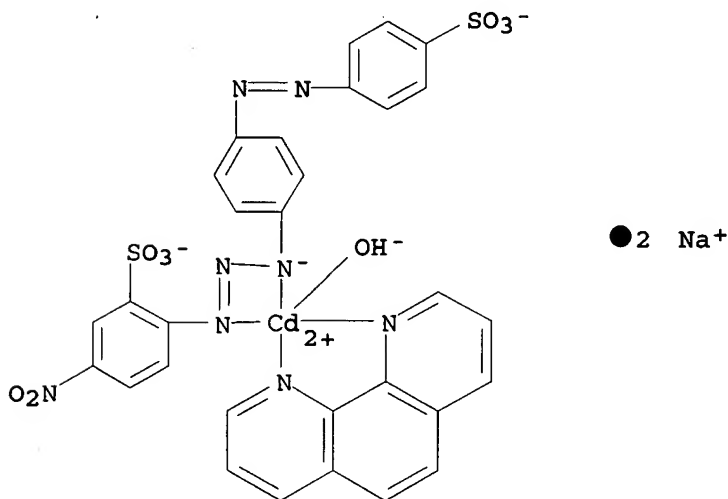
IT 70140-53-3

RL: PRP (Properties)

(spectrum of)

RN 70140-53-3 HCAPLUS

CN Cadmate(2-), hydroxy[5-nitro-2-[3-[4-[(4-sulfophenyl)azo]phenyl]-1-triazenyl]benzenesulfonato(3-)](1,10-phenanthroline-N1,N10)-, disodium (9CI) (CA INDEX NAME)



L13 ANSWER 30 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1979:161396 HCAPLUS

DN 90:161396

TI 1,3-Diphenyltriazene complexes of dichromium(II), dimolybdenum(II) and chromium(III)

AU Cotton, F. Albert; Rice, Gary W.; Sekutowski, Janine C.

CS Dep. Chem., Texas A and M Univ., College Station, TX, USA

SO Inorganic Chemistry (1979), 18(4), 1143-9

CODEN: INOCAJ; ISSN: 0020-1669

DT Journal

LA English

AB The reactions of 1,3-diphenyltriazene with the $[M_2Me_8]^{4-}$ anions ($M = Cr$ or Mo) were employed to obtain triazeno-bridged Cr-Cr and Mo-Mo quadruple bonds. The reaction with $[Cr_2Me_8]^{4-}$ gives only a small quantity of $Cr_2(PhN_3Ph)_4$ (I), the major product being $Cr(PhN_3Ph)_3$ (II). The compound $Mo_2(PhN_3Ph)_4$ (III) was also prepared. All 3 mols. were studied by x-ray crystallog. I crystallizes in space group P_{21} with a 10.302(3), b 16.045(6), c 13.600(6) Å, α 100.18(3)°, β 95.88(3)°, γ 102.93(3)°, $V = 2133(3)$ Å³ and $Z = 2$. The structure is qual. as expected, but the Cr-Cr distance is one of the shortest known, viz., 1.858(1) Å. II crystallizes in the space group $C2/c$ with a 20.619 (6), b 16.216 (3), c 13.534 (4) Å, β 120.17 (2)° $V = 3912(4)$ Å³, and $Z = 4$. The Cr(III) is coordinated by 3 chelating PhN_3Ph^- ligands to give distorted octahedral geometry. III crystallizes as a toluene solvate in space group P_{21} with a 9.981(2), b 24.814(5), c 9.657(2) Å, α 93.79(2)°, β 93.81(1)°, γ 83.55(2)°, $V = 2367(1)$ Å³, and $Z = 2$. The $Mo_2(PhN_3Ph)_4$ mol. has the expected structure, and the Mo-Mo bond length, 2.083(2) Å, is not unusual.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 75

IT 69351-81-1P 69351-82-2P 69351-84-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

IT 69351-82-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)

RN 69351-82-2 HCAPLUS

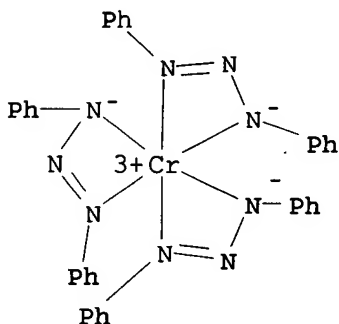
CN Chromium, tris(1,3-diphenyl-1-triazenato-N1,N3)-, (OC-6-11)-, compd. with methylbenzene (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 56811-04-2

CMF C36 H30 Cr N9

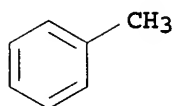
CCI CCS



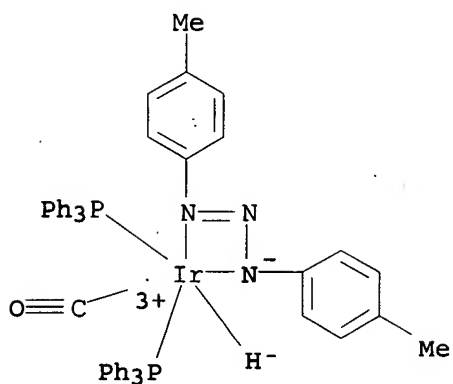
CM 2

CRN 108-88-3

CMF C7 H8



L13 ANSWER 31 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN
 AN 1978:415909 HCAPLUS
 DN 89:15909
 TI Cationic diaryltriazene, hydrido(diaryltriazenido)-, and
 diarylacetaamidine complexes of rhodium and iridium
 AU Connelly, Neil G.; Demidowicz, Zenon
 CS Dep. Inorg. Chem., Univ. Bristol, Bristol, UK
 SO Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry
 (1972-1999) (1978), (1), 50-3
 CODEN: JCDTBI; ISSN: 0300-9246
 DT Journal
 LA English
 AB Protonation of $M(CO)L_2(RN_3R)$ with HBf_4 gave either $[IrH(CO)L_2(RN_3R)][BF_4]$
 ($L = PPh_3$, $R = p\text{-MeC}_6\text{H}_4$, $p\text{-FC}_6\text{H}_4$; $L = P\text{MePh}_2$, $R = p\text{-FC}_6\text{H}_4$) or
 $[M(CO)L_2(RN_3HR)][BF_4]$ (I ; $M = Rh$, $L = PPh_3$, $R = Ph$, $p\text{-MeC}_6\text{H}_4$, $p\text{-FC}_6\text{H}_4$).
 Complexes I ($M = Rh$, Ir) and $[M(CO)L_2[MeC(NR)NHR]][BF_4]$ may be prepared
 directly from the appropriate diaryltriazene or diarylacetaamidine and
 $[M(CO)L_2(OCMe_2)][BF_4]$.
 CC 78-7 (Inorganic Chemicals and Reactions)
 IT 66540-36-1P 66540-38-3P 66540-39-4P 66540-42-9P 66540-44-1P
 66540-46-3P 66540-48-5P 66584-74-5P 66584-76-7P 66625-93-2P
 66713-01-7P 66720-56-7P 66720-58-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 IT 66713-01-7P 66720-56-7P 66720-58-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 66713-01-7 HCAPLUS
 CN Iridium(1+), [1,3-bis(4-methylphenyl)-1-triazenato-
 $N1,N3$]carbonylhydrobis(triphenylphosphine)-, tetrafluoroborate(1-) (9CI)
 (CA INDEX NAME)
 CM 1
 CRN 66713-00-6
 CMF C51 H45 Ir N3 O P2
 CCI CCS

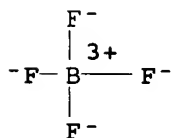


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



RN 66720-56-7 HCAPLUS

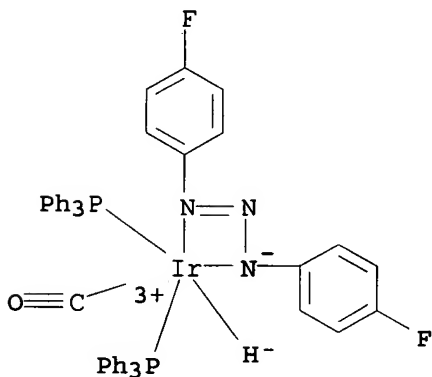
CN Iridium(1+), [1,3-bis(4-fluorophenyl)-1-triazenato-N',N3]carbonylhydrobis(triphenylphosphine)-, tetrafluoroborate(1-) (9CI)
(CA INDEX NAME)

CM 1

CRN 66720-55-6

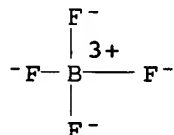
CMF C49 H39 F2 Ir N3 O P2

CCI CCS



CM 2

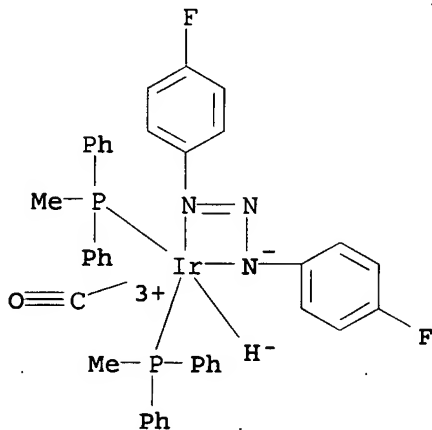
CRN 14874-70-5
CMF B F4
CCI CCS



RN 66720-58-9 HCAPLUS
CN Iridium(1+), [1,3-bis(4-fluorophenyl)-1-triazenato-N1,N3]carbonylhydrobis(methyldiphenylphosphine)-, tetrafluoroborate(1-)
(9CI) (CA INDEX NAME)

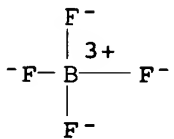
CM 1

CRN 66720-57-8
CMF C39 H35 F2 Ir N3 O P2
CCI CCS

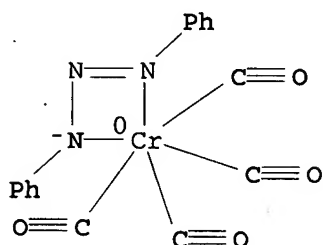


CM 2

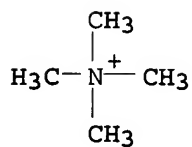
CRN 14874-70-5
CMF B F4
CCI CCS



DN 82:79823
 TI Organonitrogen derivatives of metal carbonyls. VII. 1,3-Diphenyltriazenidometal carbonyl and nitrosyl derivatives
 AU King, R. B.; Nainan, K. C.
 CS Dep. Chem., Univ. Georgia, Athens, GA, USA
 SO Inorganic Chemistry (1975), 14(2), 271-4
 CODEN: INOCAJ; ISSN: 0020-1669
 DT Journal
 LA English
 AB Sodium 1,3-diphenyltriazenide reacts with $M(CO)_6$ ($M = Cr, Mo, W$) in boiling 1,2-dimethoxyethane to give the corresponding orange anions $[Ph_2N_3M(CO)_4]^-$ ($M = Cr, Mo, W$), isolable as their Me_4N^+ salts. Sodium 1,3-diphenyltriazenide reacts with $M(CO)_5Br$ ($M = Mn, Re$) to give the corresponding neutral derivs. $Ph_2N_3M(CO)_4$. Sodium 1,3-diphenyltriazenide reacts with $C_5H_5Mo(CO)_3Cl$, $[C_5H_5Mo(CO)_3]_2$, or $MeMo(CO)_3C_5H_5$ to give orange $C_5H_5Mo(CO)_2N_3Ph_2$. Sodium 1,3-diphenyltriazenide reacts with $C_5H_5Co(CO)(C_3F_7)I$ to give orange $C_5H_5Co(C_3F_7)N_3Ph_2$. 1,3-Diphenyltriazene reacts with $[C_5H_5Mo(NO)I_2]_2$ in CH_2Cl_2 at room temperature to give red-brown $C_5H_5Mo(NO)[N_3Ph_2]I$.
 CC 78-7 (Inorganic Chemicals and Reactions)
 IT 53092-57-2P 53092-58-3P 53092-59-4P 53111-38-9P 53111-40-3P 53111-42-5P 53111-43-6P 53111-44-7P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 IT 53111-38-9P 53111-40-3P 53111-42-5P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 53111-38-9 HCAPLUS
 CN Methanaminium, N,N,N-trimethyl-, (OC-6-22)-tetracarbonyl(1,3-diphenyl-1-triazenato-N1,N3)chromate(1-) (9CI) (CA INDEX NAME)
 CM 1
 CRN 53111-37-8
 CMF C16 H10 Cr N3 O4
 CCI CCS



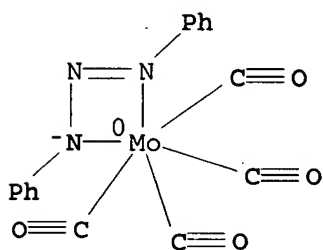
CM 2
 CRN 51-92-3
 CMF C4 H12 N



RN 53111-40-3 HCAPLUS
CN Methanaminium, N,N,N-trimethyl-, (OC-6-22)-tetracarbonyl(1,3-diphenyl-1-triazenato-N1,N3)molybdate(1-) (9CI) (CA INDEX NAME)

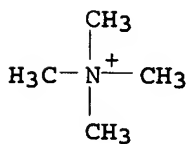
CM 1

CRN 53111-39-0
CMF C16 H10 Mo N3 O4
CCI CCS



CM 2

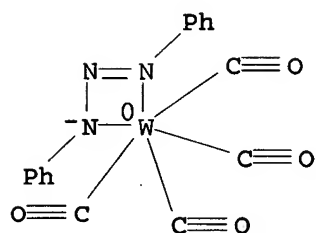
CRN 51-92-3
CMF C4 H12 N



RN 53111-42-5 HCAPLUS
CN Methanaminium, N,N,N-trimethyl-, (OC-6-22)-tetracarbonyl(1,3-diphenyl-1-triazenato-N1,N3)tungstate(1-) (9CI) (CA INDEX NAME)

CM 1

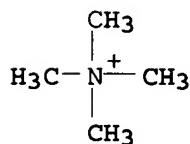
CRN 53111-41-4
CMF C16 H10 N3 O4 W
CCI CCS



CM 2

CRN 51-92-3

CMF C4 H12 N



L13 ANSWER 33 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1967:60555 HCAPLUS

DN 66:60555

OREF 66:11399a,11402a

TI Nuclear γ -resonance in complex compounds of iron with derivatives of 1,2,3-triazole

AU Stukan, R. A.; Gol'danskii, V. I.; Makarov, E. F.; Borshagovskii, B. V.; Kochetkova, N. S.; Rybinskaya, M. I.; Nesmeyanov, A. N.

SO Doklady Akademii Nauk SSSR (1966), 170(2), 354-7

CODEN: DANKAS; ISSN: 0002-3264

DT Journal

LA Russian

AB The following values of δ , Δ , and T were obtained by measurement of the Moessbauer effect for the indicated complexes of Fe with 1,2,3-triazoles: $[\text{PrCO.C}_2\text{HN}_3]_2\text{Fe.H}_2\text{O}$ ($\text{PrCO.C}_2\text{HN}_3$ = 4-butyryltriazolyl) at 300°K. 0.32, 0.5, 1.3; at 80°K. 0.35, 0.5, 1.5; $[\text{Bz.C}_2\text{HN}_3]_2\text{Fe.H}_2\text{O}$ ($\text{Bz.C}_2\text{HN}_3$ = benzoyltriazolyl) at 300°K. 0.36, 0.5, 1.4; at 80°K. 0.43, 0.5, 1.5; $[\text{Bz.C}_2\text{HN}_3]_2\text{Fe(OH)}_2$ at 300°K. 0.40, 0.75, 1.3; at 80°K. 0.45, 0.75, 1.5. 4-Benzoyl-1,2,3-triazole (I) treated with FeCl_2 in tetrahydrofuran under N gave the complex whose Moessbauer spectrum was complex, being composed of 2 doublets in 2 hrs., while after 8 hrs. a narrow doublet. Initially a high-spin octahedral complex was formed with 1 mol. of I per Fe (δ = 1.3 mm./sec. and Δ = 3.2 mm./sec.); after 8 hrs. this changed to a complex with 2 moles I per Fe. Anhydrous FeCl_2 gave a doublet spectrum with δ = 1.4 mm./sec. and Δ = 1.1 mm./sec. while in tetrahydrofuran this shifted to 2 peaks with strongly asymmetric character of quadrupole splitting; evidently FeCl_2 in this solvent forms a complex with a greatly asym. environment of the ligands.

CC 73 (Spectra and Other Optical Properties)

IT 12109-96-5

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PROC (Process)

(Moessbauer effect of iron-57 in, quadrupole splitting of lines in)

IT 12109-96-5

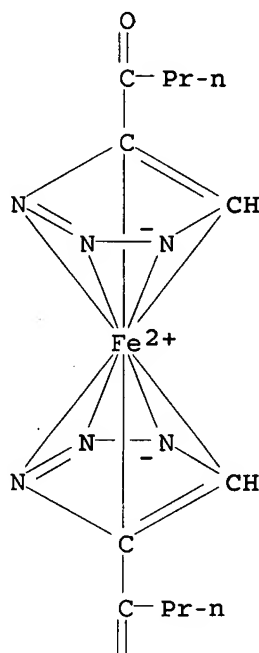
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)

(Moessbauer effect of iron-57 in, quadrupole splitting of lines in)

RN 12109-96-5 HCAPLUS

CN Iron, bis(4-butyryl- π -v-triazolyl)-, monohydrate (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L13 ANSWER 34 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1965:422042 HCAPLUS

DN 63:22042

OREF 63:3872a-b

TI Metal-nitrogen bonding. Covalent complexes of 1,3-dimethyltriazene with elements of Groups I, II, III, IV, and V

AU Brinckman, F. E.; Haiss, H. S.; Robb, R. A.

CS U.S. Naval Propellant Plant, Indian Head, MD

SO Inorg. Chem. (1965), 4(7), 936-42

DT Journal

LA English

AB A series of 1,3-dimethyltriazeno-metal derivs. (Cu(I), Zn, B, Al, Si, Sn,

KATHLEEN FULLER EIC1700 571/272-2505

Ti, Zr, and P) were synthesized and their properties were examined. One particularly useful route involves treatment of the reactive N "Grignard" intermediate which results directly from between an organic azide (RN₃; R = aryl or alkyl) and a Grignard reagent (R'MgX; R' = aryl or alkyl; X = Cl, Br, or I) with appropriate metallic or organometallic halides under inert conditions. Preliminary examination of proton N.M.R. spectra indicates involvement of the MeNN:NMe ligand in several modes of bonding, the modes being dependent on the central atom.

CC 14 (Inorganic Chemicals and Reactions)

IT 14516-16-6 14551-17-8 14553-07-2 14566-93-9 14567-00-1
14589-59-4 14589-96-9 14640-20-1 14692-62-7 14767-12-5
14837-21-9 14873-81-5 14883-71-7 15020-85-6 93606-63-4
95514-85-5

(Derived from data in the 7th Collective Formula Index (1962-1966))

IT 14883-71-7

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 14883-71-7 HCAPLUS

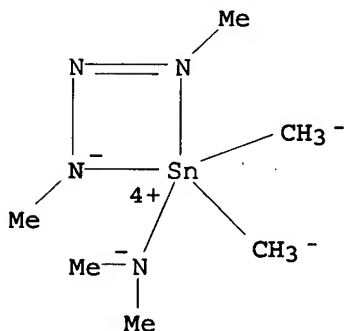
CN Tin, (1,3-dimethyl-1-triazenato-N1,N3)dimethyl (N-methylmethanaminato)-, compd. with lithium iodide (LiI) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 45839-63-2

CMF C6 H18 N4 Sn

CCI CCS



CM 2

CRN 10377-51-2

CMF I Li

I-Li

L13 ANSWER 35 OF 35 HCAPLUS COPYRIGHT 2007 ACS on STN

AN 1965:422041 HCAPLUS

DN 63:22041

OREF 63:3871h,3872a

TI Inner complexes. VI. Mixed chelates from thiopicolinamides and β -diketones

AU Kluiber, Rudolph W.

CS Union Carbide Corp., Bound Brook, NJ

SO Inorg. Chem. (1965), 4(7), 1047-51
 DT Journal
 LA English
 AB cf. CA 63, 1457e. Cu(II) and Ni(II) chelates of N-alkylthiopicolinamides interact with β -diketonates of the corresponding metal to form mixed chelates in greater than statistical concentration For systems in which the N-alkyl group is a radical of low steric bulk the mixed chelates have a sq. planar configuration around the central metal atom and the thioamide group bonds to the metal atom through the N atom.

CC 14 (Inorganic Chemicals and Reactions)

IT 14566-93-9 14567-00-1 14589-96-9 14640-20-1 14695-19-3
 14838-58-5 14873-81-5 **14883-71-7** 14930-30-4 15020-85-6
 15021-04-2 15021-05-3 15021-06-4 21315-81-1 58992-15-7
 93606-63-4

(Derived from data in the 7th Collective Formula Index (1962-1966))

IT **14883-71-7**

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 14883-71-7 HCAPLUS

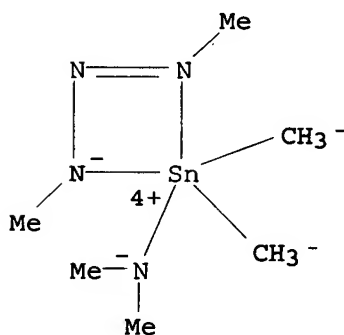
CN Tin, (1,3-dimethyl-1-triazenato-N1,N3)dimethyl(N-methylmethanaminato)-, compd. with lithium iodide (LiI) (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 45839-63-2

CMF C6 H18 N4 Sn

CCI CCS



CM 2

CRN 10377-51-2

CMF I Li

I-Li

=>